

KleeBlue™

Your Total DEF Storage & Dispensing Equipment Solution

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Comprised of SBD & MEI Partnership

In 2009, Separation By Design, Inc. (SBD) & Murray Equipment, Inc. (MEI) formed a 50/50 joint venture, KleeBlue™, to provide DEF storage and dispensing equipment solutions that now include the following products and capabilities:

- Drum & Tote Dispensing
- Electronic Dispensing
- Mini-Bulk Storage & Dispensing
- Insulated Tote Enclosures
- Bulk Storage & Dispensing
- Inside & Warm Climate Equipment
- Portable Storage & Dispensing
- Bulk Storage & Container Filling
- Delivery Carts & Skids
- Blending Systems
- Dilution Systems
- Transloading Systems
- Custom Design
- **All fully supported by a team of industry leading experienced Petroleum Equipment Industry (PEI) sales & service personnel**

Partner Backgrounds



- **SBD**, headquartered in Evansville, IN, with over 35 years of technical experience in the petroleum industry, is a leader in the design and manufacture of custom fuel systems, including a patented aboveground oil/water separator as well as gasoline, diesel, crude, biodiesel and ethanol transloading, storage and dispensing facilities located throughout the United States & Canada.



- **MEI**, headquartered in Ft. Wayne, IN, and established in 1950, is a wholesale distributor, fabricator, automation control and meter manufacturer - marketing under the brand **Total Control Systems**, and a “systems” house marketing its liquid handling products and services to the Fertilizer, Chemical and Petroleum Industries.



Separation by Design - Other Products



Patented Aboveground Oil/Water Separator



Biodiesel Blending Skid



Crude Transload Skid



Patented Aboveground Piping Chase Assembly
US Patent #D654,153 S



US Patent #8,302,639 B2 Portable Blending Skid Systems – Ethanol/Biodiesel/DEF



Drum & Tote Dispensing Equipment

Open & Closed Solutions



Gravity, Hand, Piston, Portable Cart, Air/Electric & Tote Manifold Packages

Economical Dispensers

Supplied by Remote Storage Container & Pump – Warm Climates (Inside or Outside)



SBD 910644 Stand



SBD 910646 Lockable Enclosure Model

Features:

- Powder coated steel base, stand and mounting plate
- 5 min timer switch
- Ball valve
- Electronic flow meter
- 30' hose
- Stainless steel automatic nozzle w/ hose barb connection
- Hose hang hook
- SBD 910644

Options:

- Lockable powder coated steel enclosure for components including nozzle for outside in warm climates (SBD 910646)
- For interfacing w/ Fuel Management Systems, SBD 910646PO is available w/ pulse output – FMS needs 20 amp pump relay or use our switch box (single DEF dispenser application)

Commercial Dispensers

Supplied by Storage Container & Pump – Cold or Warm Climates



SBD KB1060HR



SBD KB1060PO



SBD KB1060POHR on 1000 Mini-Bulk



SBD KB1060 on 400 Mini-Bulk



SBD KB1060POHR

Features:

- Aluminum housing cabinet
- Dual 16" wide swing out locking doors
- Hose hang hook for 12' standard hose
- R5 insulation with solid FRP face
- 400 watt fan forced heater
- Electronic flow meter
- 5 min timer switch
- Polypropylene filter housing w/ 1 micron filter cartridge
- SBD KB1060

Options:

- Up to 25' hose
- Pulse output capable stainless steel meter with LCD display for future or existing fuel management system (SBD KB1060PO)
- 25' spring rewind Hannay hose reel (SBD KB1060HR or SBD KB1060POHR)
- Wall mount, ground mount stand or mounted on 400/1000 gallon mini-bulk tank
- No insulation and/or heater
- Stainless steel automatic nozzles, swivels, breakaways

Electronic Pedestal Dispensers – Fleet or Retail

Warm Climates – Inside or Outside
(Phasing Out Winter 2015-2016)



Features:

- Powder coated steel cabinet, pedestal, mounting base
- LCD gallons display
- SBD-100 Software Volume or Retail
- Stainless steel oval gear meter w/ pulse output
- Programmable pulse output
- Stainless steel filter housing w/ 1 micron filter cartridge
- 10' hose

Options:

- Wall mount
- 15' hose with retractor
- W & M meter w/ gallons only display or PPU/gallons/Total Sale display
- Suction pump w/ Micromatic RSV dispense coupler & 5' suction hose
- On/off controls for New Flyer Buses
- Stainless steel automatic nozzles, swivels, breakaways

Electronic Regal Pedestal Dispensers – Fleet or Retail

Warm Climates – Inside or Outside
(Tentatively Available Fall 2016)



Regal Fleet



Regal Retail



Fleet w/ Fleet Management System

NEW 2016 - Apex Fleet & Retail Dispensers Cold or Warm Climates



Features:

- Certified by CSA to UL-508 & CSA 22.2 – electrical safety stds for Ind. Control Eq. in USA & Canada
- R5 insulated w/ high output redundant heaters in lower compartment
- Powder coated galvanized steel & stainless steel exterior panels
- LCD gallons/PPU/total sale display
- SBD-100 Software Retail
- NTEP W & M approved TCS 682 stainless steel
- Programmable pulse output or interfaces with most POS devices
- Stainless steel filter housing w/ 1 micron filter cartridge
- Hannay spring rewind hose reel with 15' of hose, 12' usable

Options:

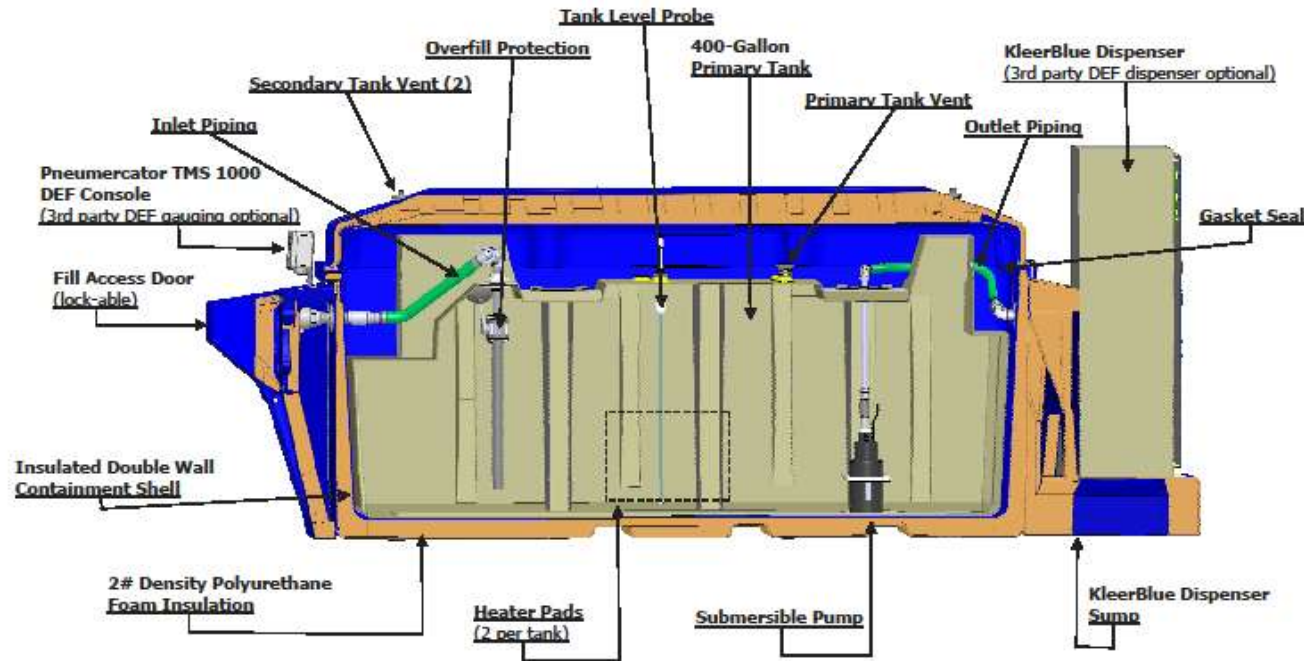
- Place remote or mounted on 400/1000 gallon mini-bulk tank
- Stainless steel automatic nozzles, swivels, breakaways
- Dual sided units

NEW - Apex Fleet & Retail Dispensers Mounted On KleeBlue 400 & 1000 Gallon Mini-Bulk Tanks



400 Gallon Mini-Bulk Tank

Cold or Warm Climates



KleerBlue™ 400-Gallon DEF Insulated, Heated Storage Tank, Section View

Features:

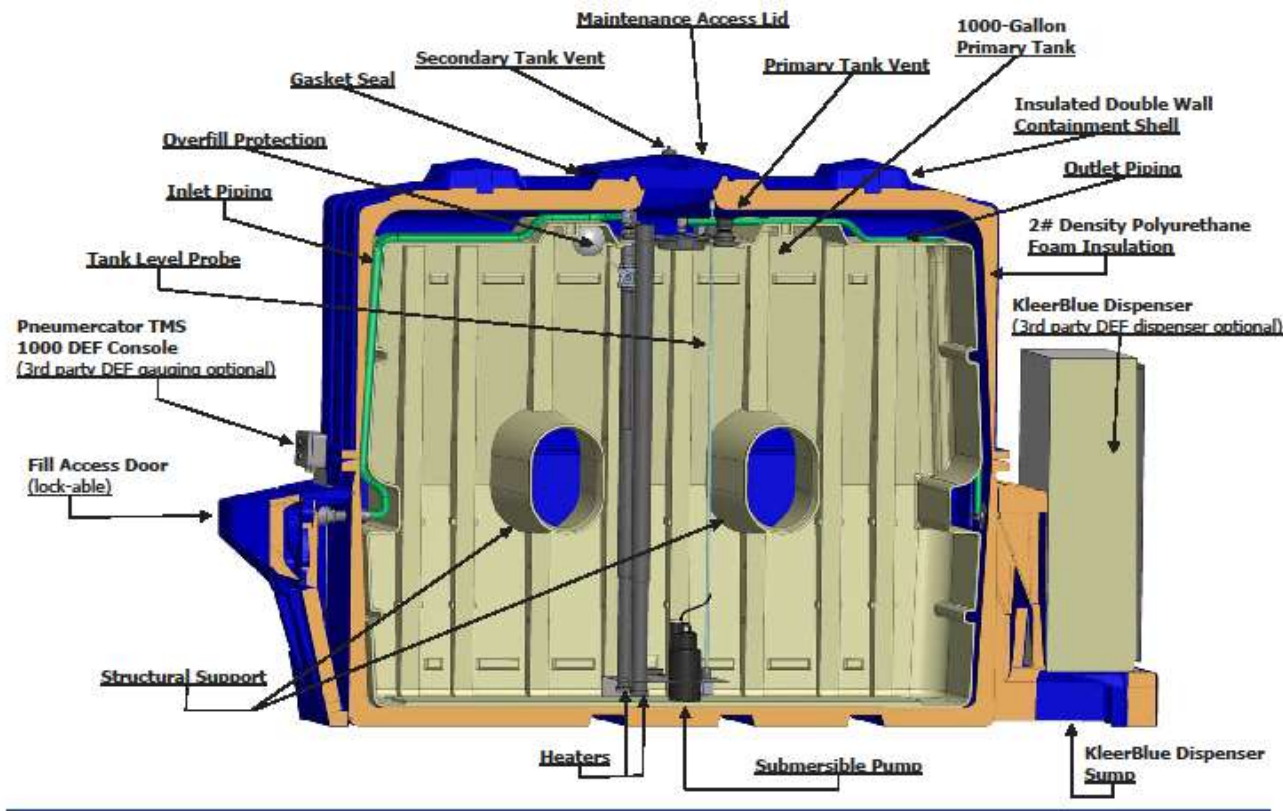
- Patent Pending
- Fueling island friendly width of 38"
- R16 insulation – bottom, sides & top
- First in Industry - (2) heaters, one (1) for backup - 200w pad – keeps product in tank at 40° F when outside is - 40° F
- No tank bottom sidewall fittings
- ¾ hp single submersible pump
- Triple wall containment – single wall primary tank in double wall containment shell
- UV8 protected polyethylene outer containment shell – no maintenance or polishing required
- Impact resistant
- Certified by CSA to UL-508, ANSI/UL 50, CSA 22.2 No. 14-10 & 94-M1991, electrical safety standards for Industrial Control Equipment in US and Canada
- Blue colored shell

Options:

- Digital level gauge or 3rd party ATG probes
- Supply remote DEF dispensers, tank end mounted KleerBlue commercial, fleet or retail DEF dispenser or 3rd party DEF dispenser

1000 Gallon Mini-Bulk Tank

Cold or Warm Climates



KleeBlue™ 1000-Gallon DEF Insulated, Heated Storage Tank, Section View

Features:

- Patent Pending
- Fueling island friendly width of 44"
- R16 insulation – bottom, sides & top
- First in Industry - (2) heaters, one (1) for backup - 450w immersion heater – keeps product in tank at 40° F when outside is -40° F
- No tank bottom sidewall fittings
- ¾ hp single submersible pump
- Triple wall containment – single wall primary tank in double wall containment shell
- UV8 protected polyethylene outer containment shell – no maintenance or polishing required
- Impact resistant
- Certified by CSA to UL-508, ANSI/UL 50, CSA 22.2 No. 14-10 & 94-M1991, electrical safety standards for Industrial Control Equipment in US and Canada

Options:

- Blue or tan colored shell
- Digital level gauge or 3rd party ATG probes
- Supply remote DEF dispensers, tank end mounted KleeBlue commercial, fleet or retail DEF dispenser or 3rd party DEF dispenser

400 & 1000 Gallon Mini-Bulk Available Configurations

With tank end mounted dispensers KleerBlue Commercial, Bennett, Gasboy, Gilbarco, PD McLaren & Wayne
(Can provide for supplying additional remote DEF dispensers w/ relays & piping access)



KleerBlue Commercial Series



PD McLaren - Canada



Gilbarco Encore



Wayne



Gasboy Atlas - Warm Climate



Gasboy Atlas - Cold Climate



Bennett

400 & 1000 Gallon Mini-Bulk Remote Configurations

Mini-Bulk tank located remotely supplying fueling island located dispensers



Can supply with manifolded submersibles if the application requires

Mini-Bulk Tank Gauging Systems



Digital Gallons/Liters Display Gauge

400, 1000, 2000/2600 Gallon Tank Systems & Bulk Poly Tanks

- 3rd Party (Veeder Root, Incon, etc.) 2" DEF compatible ATG probe, float & 20' cable components or remote monitoring systems can be installed
- KleerBlue provides part numbers and then components are sent to us for installation
- KleerBlue can also provide custom gauging systems with desired alarms

Single & Dual Tote Enclosures

Standard Features:

- Insulation & heating
- Exhaust fan
- Finished interior walls & floor
- Preassembled on skid w/ forklift access points

Options:

- Hose reel option available
- Dual tote manifold package available
- Submersible pump equipped tote available
- KleeBlue DEF dispenser options available



KleeBlue 7100-Ultra Turn-Key Bulk Storage Unit (Spring 2016)



- Largest storage capacity cabinet storage tank system
- Compact footprint – 8'5" wide x 18' long x 9'10" high
- Insulated & heated
- Secondary containment
- Single or multiple submersible pump design
- Smaller storage capacities & footprints planned
- Aesthetically pleasing exterior cabinet

2000 or 2600 Gallon Mini-Bulk Enclosures

Supplying Remote KleeBlue/3rd Party DEF Dispensers or Internal Dispenser



Insulated & Heated Supplying Multiple Remote DEF Dispensers



Major Fleet – Custom w/ Integrated Retail DEF Dispenser & Gasboy FMS



25' Hose Reel, Filter, Pulse Out Meter

Standard Features:

- Polyethylene Outer Shell
- 2000 or 2600 Gallon Poly Tank
- Secondary containment
- R14 insulated & fan forced heater
- Dimensions: 94" W x 126" L x 115" H

Options:

- Exhaust fan
- High or Low Temp Alarms
- Dispensing equipment
- White color in lieu of blue
- Manifoldded submersibles

2000 or 2600 Gallon DP Mini-Bulk Enclosures Supplying Remote KleeBlue/3rd Party Retail DEF Dispensers (Available Summer 2016)



Please contact us for more details

Poly Vertical Tank & Dispensing Systems

Warm or Cold Climate



Features:

- Designed with no bottom outlets – only tank top fittings, but waist high fill point
- Designed to take into account poly tanks inherent movement
- Single, dual or triple submersible pump solutions to meet every need
- If bottom outlets are necessary, such as for manifolding tanks, durable and long term components provided
- Singlewall or doublewall tanks available – 500 to 16,500 gallon capacities in various dimensions
- Wind & seismic restraint systems designed and provided by tank manufacturer
- High quality ASTM D1998 specification tanks recommended for outside applications
- Supply nearby or remote KleeBlue retail dispensers or 3rd Party dispensers

Inside & Warm Climate Poly Tank Solutions

Supplying Nearby or Remote KleeBlue/3rd Party DEF Dispensers



Cold Climate Bulk Poly Tank & Dispensing Solutions

Supplying Nearby or Remote KleeBlue/3rd Party DEF Dispensers



Cold Climate Bulk Poly Tank Solutions

Supplying Nearby or Remote KleerBlue/3rd Party DEF Dispensers



Features:

- Same KleerBlue operational design as warm climate poly tank solutions
- Tank insulation & heat trace system by tank manufacturer doing it since 1980s
- KleerBlue provided insulated & heated waist high to tank top fill line system

Quick to Retail Tote & Dispenser System

Affordable, W & M Compatible System



Features:

- 330 gallon IBC tote with submersible pump
- Bottom outlet for manifolding tote to other submersibles
- Supplies KleeBlue Retail DEF dispenser options, KleeBlue commercial or fleet dispenser options or 3rd Party DEF dispenser options (by others)

Options:

- KleeBlue Single or Dual Tote Enclosure Cabinet for storage of tote(s) – mount dispenser on transition box

Portable Tank & Dispensing System (PTDS)



Features:

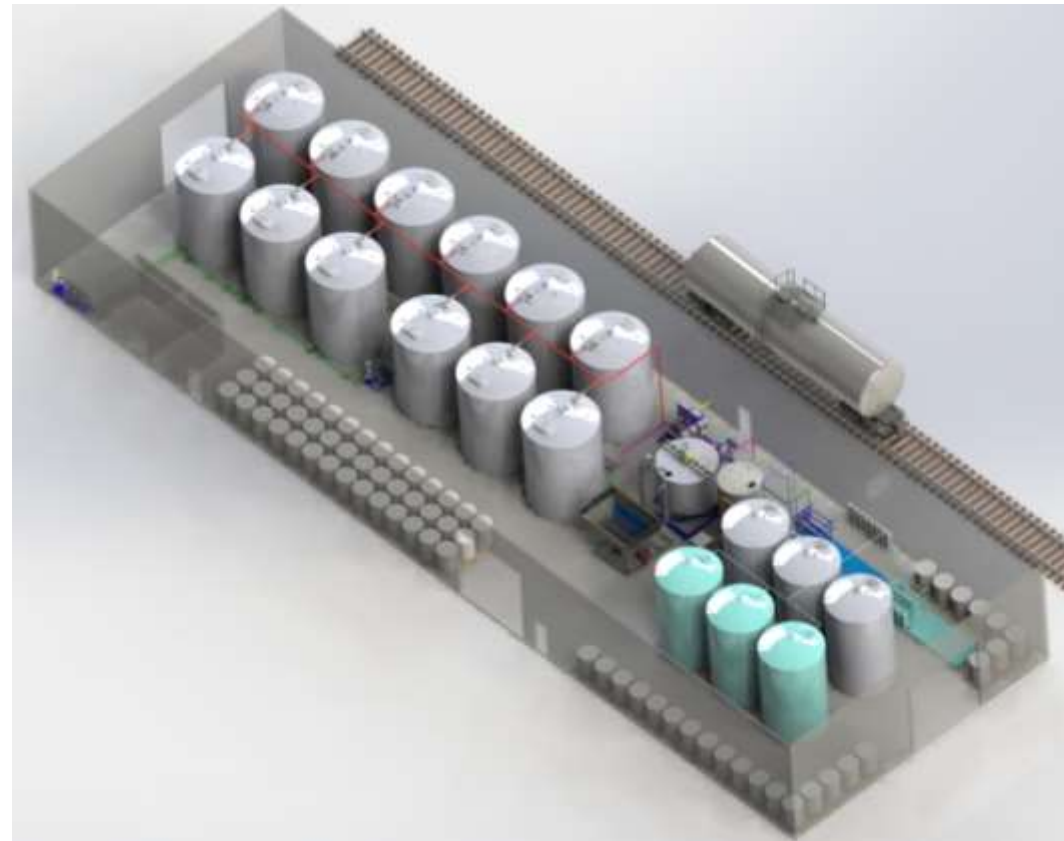
- Allows for dispensing from a 50 or 100 gallon poly tank to fill DEF tanks on agricultural, off-road or on-road equipment with attached pump
- 12v Piusi DEF pump w/ 20' of power cord & battery clips
- Dustproof and weatherproof nozzle storage box, lockable
- Rugged stainless steel automatic nozzle w/ 20' of discharge hose
- Components accessible from ground
- Fork truck accessible, powder coated steel frame
- Kamlock fill plumbing
- Designed to prevent infiltration of contaminants
- Sized to fit into the back of a pick-up with tie down hoops

Options:

- Micro-Matic fill plumbing
- SBD 230A/I-12 (to the left) – 230 gallon tank

DEF Concentrate Dilution & Prill Solutionizing Systems

Using SBD Patented Portable Blending Skid & Other Components
Dilutes 50% Product to 40% or 32.5% Product and/or Solutionize Prill



DEF Dilution & Solutionizing Systems - Components



Mobile High Speed DEF Transload Cart



Features:

- Unload railcar loads of DEF into bulk storage tanks or transports trailers
- 290 GPM transfer rate
- Available with specially designed insulation and heating package for added equipment protection
- Electric or air

Options:

- Platform system – no wheels

DEF Distributor Bulk Storage Tanks & Pumping Systems



Features:

- Tank comes with recommended bottom sidewall outlet and fitting packages
- Various sizes and capacities of commodity or ASTM D1998 spec poly tanks to account for building access doors and ceiling height for tipping vertical
- Unload or fill transports, tanks or tankwagons
- Fill drums, totes, tanks or trucks from DEF bulk storage tank with W & M meter equipment
- Custom designs available

Options:

- Manifoldd outlets

DEF Distributor Portable Delivery Skid Power Options

Gas Generator Version



Gas Pump Version

Hyd Pump Version



Diesel Generator Version

DEF Distributor 2-Wheel Portable Cart Fill System Top or Bottom Withdrawal Options



With Mechanical Register/Printer



With TCS-3000 Electronic Register & Bluetooth Printer



Portable Hose Reel w/ Automatic Nozzle For Wet Hosing Using Portable Cart

Features:

- Investment cast self-primer pump or centrifugal pump and TEFC motor
- TCS 682 stainless steel W & M approved meter
- Stainless steel filter housing w/ 1 micron cartridge
- Stainless steel kamlocks on both hose ends for ease in switching from drum/tote fills to bulk tank, or vice versa
- Flow rates between 18 gpm and 39 gpm w/ Micromatic couplers

Options:

- No W & M meter/register printer
- Turbine meter
- Portable hose reel with automatic nozzle for wet hosing

DEF Distributor Portable Dispensing System Bulk & Wet Hosing Combined Unit



DEF Distributor Multi-Purpose Stationary Pump System **250 GPM Transload/Load/Unload & Drum/Tote Filling**



DEF Transport Trailers

Belly Box – Pump, Filters and W & M Meters



Custom Design Capabilities - Example



Truck Fleet – Poly tank, insulated/heated tank top fill line, insulated/heated product piping from tank top to insulated/heated dispenser next to tank, and through a SBD patented aboveground piping chase w/ insulated/heated piping to 2nd dispenser on another fueling island

KleeBlue™

- Offers the most complete line of DEF storage & dispensing equipment in the DEF equipment industry
- I have been involved in the Petroleum Equipment Industry (PEI) since 1992 as a manufacturer representative, distributor salesperson and contractor, then as General Manager for a commercial fueling division of a fuel jobber, and biofuels representative for a major oil company. In addition, Roy Jorgensen, President, started in the industry as a service technician over 25 years ago, and Jason Voegel, Service Coordinator, has been a service technician and coordinator for over 13 years, both with considerable experience in FMS and POS equipment as well as terminal facilities equipment such as Microload and Accuload controls.
- *All DEF equipment suppliers may provide similar products, but KleeBlue, as a manufacturer with years of experience in the petroleum and agriculture industries, is **able to provide solutions to meet nearly any customer need and take into consideration how we would want in a system if it was our own - safe, durable, problem free and have excellent customer support after the sale.***
- This continues to be an emerging and dynamic industry - equipment offerings will be constantly changing

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