

Trailblazer® 325 Diesel

**Diesel Engine-Driven
Welder/AC Generator**



Quick Specs

Industrial Applications

Fabrication
Maintenance
Repair
Structural steel work
Sheet metal
Pipe

Processes (X-Ray Quality)

Stick (SMAW)
MIG (GMAW)
Flux-cored (FCAW)
RMD®*
Pulsed MIG (GMAW-P)*
DC TIG (GTAW)
Air carbon arc (CAC-A) cutting and gouging
Rated: 3/16-inch carbons,
Capable: 1/4-inch carbons
Air plasma cutting and gouging with
optional Spectrum® models
Rated: 5/8-inch mild steel

Output Range DC stick 30–325 A
MIG/flux-cored 10–35 V
DC TIG 10–325 A

Generator Power Output Rated at 104°F (40°C)

12,000 watts peak, 10,500 watts continuous

Excel™ Power (Recommended option)

2,400 watts (120 V, 20 A) 60 Hz pure sine power**

*Available only on ArcReach models.

**Engine speed rpm may vary while welding.

Trailblazer welder/generators deliver unbeatable arc performance providing the smoothest, most stable arc in the industry.

The Trailblazer exclusive technologies — Auto-Speed™ and optional Excel™ power — deliver superior runtimes, increased fuel efficiency, and improved welder/generator performance.

No other compact machine in the 300-amp class delivers more welding power or more auxiliary power with better fuel efficiency and less noise — for productive, profitable, quieter jobsites.

ArcReach®

Remote control of the power source without a cord. See page 2.



Trailblazer 325 Diesel with optional ArcReach and Excel power shown.



Welder/generator is warranted for three years, parts and labor.
Engine is warranted separately by the engine manufacturer.



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MillerWelds.com



Unbeatable arc performance

Wide amperage output with better welding deposition rates means you can get jobs done faster, saving time and money. The Trailblazer also has precise arc control, which allows you to fine-tune the arc to match your

personal preferences and quickly dial in the perfect parameters to optimize weld quality and maximize productivity across a variety of applications and welding processes.

Auto-Speed™ technology

Matches engine speed to load — a Miller exclusive. Get the welding power you need — plus reduced fuel consumption and lower noise levels for a more-profitable, safer jobsite.

Unlike competitive machines that operate at 3,600 rpm (max) under any load, Miller-exclusive Auto-Speed technology responds to weld requirements by automatically adjusting engine speed to one of five rpm levels so the engine never works harder than necessary. Weld up to 135 amps while the engine remains at idle (1,800 rpm), saving up to 15 percent in fuel over competitive units, and drastically reducing jobsite noise.

Welding at idle speed

Welding below
135 A

1,800
RPM

Welding between
136–180 A

2,400
RPM

Welding between
181–210 A

2,800
RPM

Welding between
211–235 A

3,200
RPM

Welding above
235 A

3,600
RPM

Auto-Speed in XX18 and TIG modes.

Excel™ power (option)

Power at idle — a Miller exclusive. Unlike competitive machines that provide auxiliary power only at 3,600 rpm (max), Excel power delivers a full 2,400 watts (20 A) of 120-volt inverter-based, pure sine wave power at 2,400 rpm while not welding. With Excel power you can operate jobsite tools like grinders at quiet, fuel-saving speeds.

Refueling time and operating costs are reduced with Excel power, which means more productivity and profitability. Plus everyone on the jobsite gets a better working environment because noise levels and exhaust emissions are lowered. Excel power — available only from Miller.



UP
TO **68%**
MORE FUEL EFFICIENT
WITH EXCEL POWER

Based on generator-only use for total runtime.

Dynamic DIG™



Ultra-adaptive arc control. Unlike conventional DIG that provides a preset amount of short-clearing current, Miller's proprietary Dynamic DIG works on a time-based algorithm that automatically adjusts

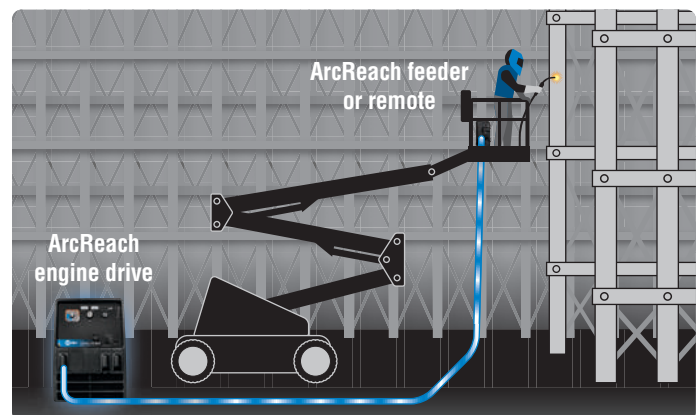
the amount of current required to clear a short. What does this mean? A smoother more consistent arc that can be tailored to match application, material, fit-up, and welder technique.

ArcReach® remote control technology (option)



Remote control of the power source without a control cord. An ArcReach system allows you to change weld

settings from your ArcReach feeder or remote, saving a trip to the power supply. ArcReach technology uses the existing weld cable to communicate welding control information between the feeder or remote and the power source. This technology eliminates the need for control cords, and their associated problems and costs.



Trailblazer® Benefits

Fewer refueling trips

No other diesel welder/generator in the 300-amp class lets your crews spend more time working and less time refueling — because only Trailblazer welder/generators provide Auto-Speed™ technology, plus the Excel™ power option, to deliver maximum runtime.

Maximum cost savings

Less money spent on fuel means more profit for you. Every Trailblazer welder/generator has fuel-saving Auto-Speed technology; add optional Excel power to save even more on fuel costs and enjoy a combination of advanced, profit-enhancing features that are only available on a Trailblazer welder/generator.

Safer, more productive jobsites

Quieter jobsites are safer and more productive because work crews can communicate easier, and work can start earlier and end later — even in noise-sensitive areas. Miller-exclusive Auto-Speed technology makes this welder/generator the quietest Trailblazer diesel yet — rated at 70 db at idle (1,800 rpm). If your jobsite needs a welder/generator, it needs a Trailblazer welder/generator — because no other diesel-fueled choice in this category is as quiet.

Optional ArcReach® remote control technology eliminates the need to trace or move heavy secondary weld leads bundled with control cords on the jobsite. Complete remote control of welding processes and parameters improves safety by limiting jobsite movement and reducing slip, trip and fall hazards.



**IT WOULD TAKE
8 TRAILBLAZERS
TO EQUAL THE
SOUND OUTPUT OF
1 COMPETITOR
MACHINE.**

More portable, uses less truck and jobsite space

Trailblazer welder/generators are up to 24 percent smaller and 10 percent lighter than competitive machines — which means moving them is faster and easier, for maximum productivity. And because they take up less space, Trailblazer welder/generators let work trucks carry more equipment and gear — so your work crews can be ready for anything.



**24%
LESS CUBIC SPACE
THAN THE COMPETITION**

Cleaner and stronger generator power

Combined with a 25-horsepower engine, Trailblazer welder/generators offer 12,000 watts of clean, truly usable generator power that is Accu-Rated™, not inflated: tested to deliver uninterrupted peak output for a minimum of 30 seconds for big loads, so you can get more jobs done.

An independent welder and generator power system ensures no interaction between jobsite tools and the welding arc, while advanced generator technology virtually eliminates power spikes and other electrical imperfections — so welds are cleaner and jobsite tools can run without interruption, maximizing quality, productivity and profit.

Specifications (Subject to change without notice.)



Welding Mode	Process	Amp/Volt Ranges	Rated Weld Output at 104°F (40°C)*	Single-Phase Generator Power	Sound Levels at 7 m (23 ft.)	Dimensions	Net Weight**
CC/DC	Stick/TIG	10–325 A	325 A at 33 V, 100% duty cycle	Peak 12,000 watts Continuous 10,500 watts	Weld 135 A load: 70 dB (94 Lwa), 325 A load: 81.5 dB (106.5 Lwa) Generator power Excel power (optional): 75 dB (100 Lwa), 12 kW standard power: 81.5 dB (106.5 Lwa)	H: 28 in. (711 mm) H: 34.375 in. (873 mm) (to top of exhaust) W: 20 in. (508 mm) D: 45.375 in. (1,153 mm)	620 lb. (281 kg)
CV/DC	MIG/FCAW	10–35 V	325 A at 33 V, 100% duty cycle	Excel™ power (optional) 2,400 watts, 20 A at 120 V, 60 Hz pure generator power at 2,400 rpm and while welding			

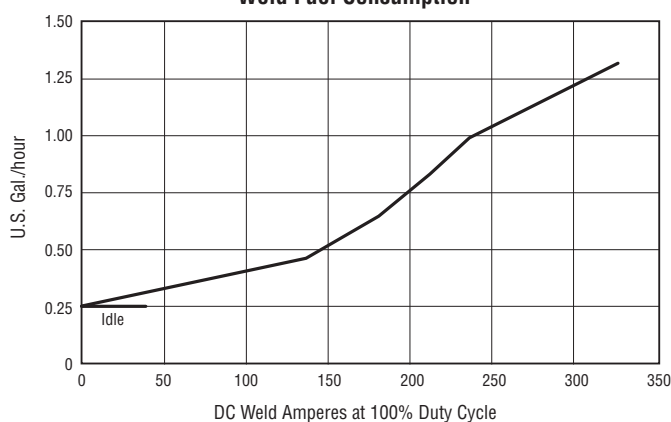
*Rated at sea level. **Net weight without fuel. Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

Engine Specifications (Engines warranted separately by the engine manufacturer.)

Engine Brand and Warranty	Horsepower (HP)	Type	Weld Speed	Idle Speed	Fuel Capacity	Oil Capacity	Standard Shutdowns
Kubota D902, 2-year limited North American warranty	24.8 hp at 3,600 rpm	Three-cylinder, industrial liquid-cooled diesel	Auto-Speed™ 1,800, 2,400, 2,800, 3,200 or 3,600 rpm	1,800 rpm or 2,400 rpm	12 gal. (45 L)	3.9 qt. (3.7 L)	High coolant temperature/ Low oil pressure/low fuel

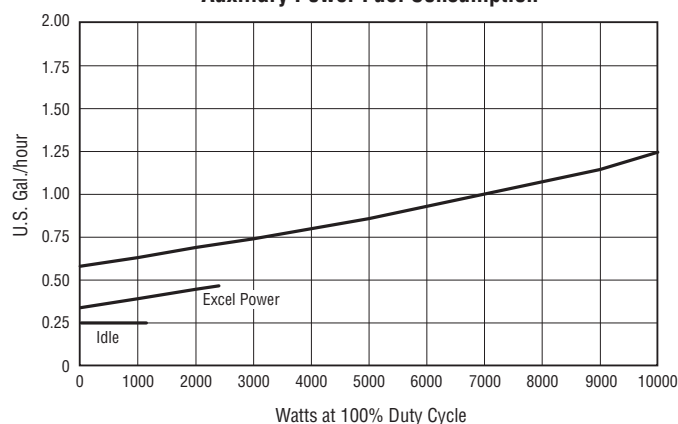
Performance Data

Weld Fuel Consumption*

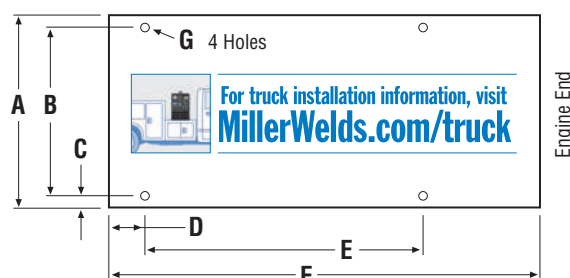


*Fuel curve was generated using NEMA recommended voltage/amperage levels.

Auxiliary Power Fuel Consumption

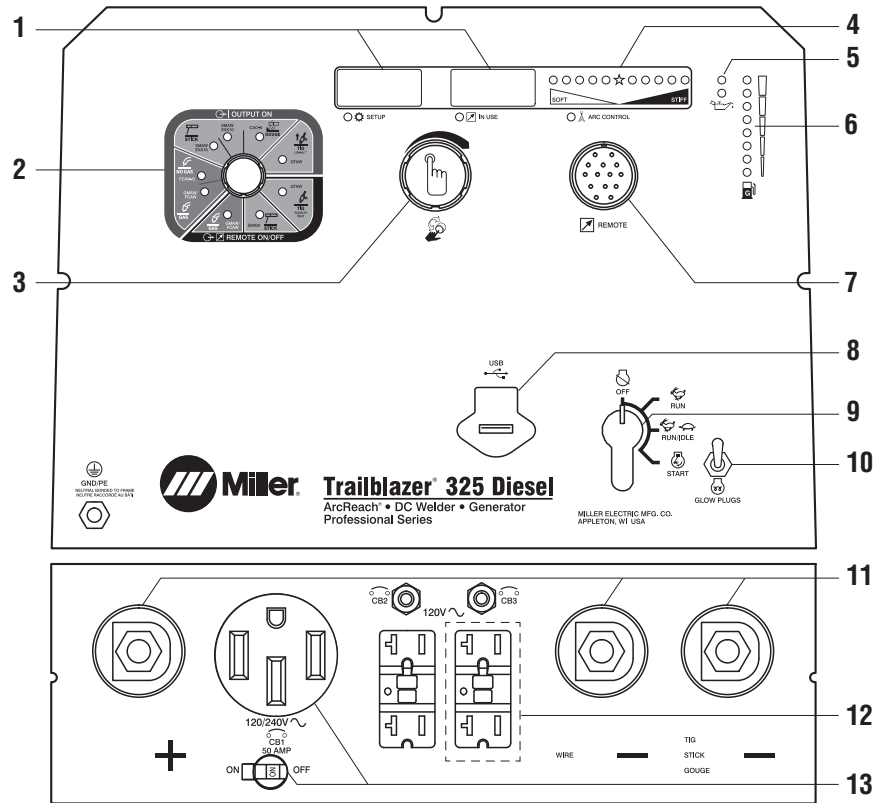


Mounting Specifications



- A. 20 in. (508 mm)
- B. 16.5 in. (419 mm)
- C. 1.75 in. (44 mm)
- D. 6.062 in. (154 mm)
- E. 32.75 in. (832 mm)
- F. 45.375 in. (1,153 mm)
- G. .406 in. (10.3 mm) diameter

Function and Benefit Guide



1. Self-calibrating digital meters with SunVision™

- Preset and actual amperage/voltage
- Process settings
- Maintenance functions: hour meter, oil change interval, rpm

2. Weld process selection switch

3. Pushbutton main control knob used for adjusting amperage/voltage, adjusting arc control, and accessing the service menu.

4. Adjustable arc control adjusts DIG when process control is in stick modes and adjusts inductance when process control is in FCAW or MIG modes. The amount of DIG determines how much amperage (heat) varies with stick arc length. Inductance determines the “wetness” of the weld puddle.

5. Maintenance interval reminder. Yellow and red indicator lights let an operator know when the machine is approaching, and finally in need of routine maintenance.

6. Front-panel fuel-gauge LEDs indicate fuel level. Low fuel shutdown automatically detects and shuts engine off prior to running out of fuel.

7. Standard 14-pin receptacle for simple connection of remote controls and wire feeders. Includes **Auto Remote Sense™** which automatically switches from panel to remote amperage/voltage (A/V) control with remote connected. Eliminates confusion of a panel/remote switch.

8. USB port allows software updates from a USB drive. A summary file of recorded data from the unit will be saved to a USB drive that is inserted.

9. Engine control: Run/idle position adjusts engine to run at lower speeds depending on total power needed for welding.

10. Glow plugs assist in cold weather starting.

11. Weld output terminals

12. Optional Excel™ power (factory option, see page 8) provides pure generator power at 2,400 rpm and while welding.

Note: If Trailblazer is ordered without Excel power option, unit is shipped with two 20 A, 120 V duplex receptacles with circuit breakers and ground fault.

13. 50 A, 120/240 V receptacle with circuit breaker

(For matching plug, order 119172.)

Genuine Miller® Options *Available as factory option. See ordering information on back page.

GFCI Receptacles* 300975 Field
Kit contains two GFCI 120 V duplex receptacles.
(240 V GFCI receptacle not required.)

Cold Weather Kit 301115 Field
Includes block heater for improved starting,
and a fuel heater for optimal filtration in cold
temperatures.

Spark Arrestor 043579 Field
Mandatory when operating on California grass-
lands, brush or forest-covered land, and all
national forests. For other areas, check your
state and local laws.



Full KVA Adapter Cord 300517 Field
NEMA 14-50P to NEMA 6-50R. Adapts engine
drive 120/240 V plug to common Millermatic®
and Spectrum® 240 V plug.

Female
Receptacle



Full KVA Plug Kit
119172 Field
120/240 V, 50 A plug
(NEMA 14-50P) to fit full
KVA receptacle.

Order the following from Miller Service Parts.

Diesel Engine Filter Kit 259935 Field
Includes air filter, oil filter, fuel pre-filter and
primary fuel filter.

Genuine Miller® Accessories



Never Flat™ Tires

Available on Bobcat and
Trailblazer running gear.

- Eliminate costly jobsite
downtime

- Maintain constant tire pressure and will
not develop flats
- Protect against punctures
- Preserve maneuverability, even when
weighed down with heavy welding cable



All-Purpose Running Gear 300477

Includes two heavy-duty 15-inch Never Flat™
tires, two 8-inch rubber swivel casters and a
heavy-duty handle. Recommended for all surfaces
and applications, and is easy to move around
the jobsite.



Protective Cage with Cable Holders 195331

Rugged cage with cable holders protects your
investment. Can be used with running gear,
gas cylinder mounting assembly, or with trailer.

Note: Not for use with protective cover.

Protective Cover



Protective Cover 301099

Heavy-duty, water-resistant and mildew-
resistant cover protects and maintains the finish
of the welder.

MIG/Flux-cored Welding



SuitCase® 12RC Wire Feeder 951580

Lightweight and flexible enough to run wires
up to .062-inch diameter. Includes remote
voltage control, drive roll kit and Bernard™ BTB
Gun 300 A. See literature M/6.5.



ArcReach® Smart Feeder 951733

*For use with
ArcReach models
only (see page 2 for
more information).*

Includes drive rolls
and Bernard™
PipeWorx 300-15 MIG
gun. For MIG, FCAW,
and advanced RMD®

and pulse processes. See literature M/6.55.



ArcReach® SuitCase® 8

951726 With Bernard™ BTB Gun 300 A

951727 With Bernard™ S-Gun™

951728 With Bernard™ Dura-Flux™ gun

ArcReach® SuitCase® 12

951729 With Bernard™ BTB Gun 300 A

951730 With Bernard™ S-Gun™

951731 With Bernard™ Dura-Flux™ gun

Portable feeder designed to run off of arc voltage.
When paired with an ArcReach power source,
provides remote control of the power source
without a control cord — saving time and money.
See literature M/6.55.



Spoolmatic® 30A Spool Gun 130831

Air-cooled, 200-amp, one-pound spool gun for
aluminum MIG. See literature M/1.73. Requires
WC-24 Control (137549).

XR™ Wire Feeders and Guns

Push-pull system designed to handle difficult-
to-feed soft alloy wires such as aluminum.
See literature M/1.7 through M/1.74.

Genuine Miller® Accessories (Continued)

Stick (SMAW) Welding



Weld Leads

2/0 Stick Cable Set, 50 ft. (15 m) 173851

Consists of 50-foot (15 m) 2/0 electrode cable with holder, and 50-foot (15 m) work cable with clamp. 350 A, 100% duty cycle.

2/0 Stick Cable Set, 100/50 ft. (30.5/15 m) 043952

Consists of 100-foot (30.5 m) 2/0 electrode cable with holder, and 50-foot (15 m) work cable with clamp. 300 A, 100% duty cycle.

AC TIG (GTAW) Welding



Dynasty® 210 Series

For portable
AC/DC TIG.
See literature
AD/4.81.

Plasma Cutting



Spectrum 375 X-TREME and 625 X-TREME shown.

Spectrum® 375 X-TREME™ 907529

See literature PC/9.2.

Spectrum® 625 X-TREME™ 907579

See literature PC/9.6.

Spectrum® 875 907583

See literature PC/9.8.

The Spectrum 375 X-TREME and 625 X-TREME come complete with protective X-CASE™ (not shown).

Remote Controls



ArcReach® Stick/TIG Remote 301325

When paired with an ArcReach power source, provides remote control of the power source without a control cord — saving time

and money. See literature AY/14.5.



Wireless Remote Hand Control 300430

For remote current, voltage and contactor control. Receiver plugs directly into the 14-pin receptacle of Miller

machine. 300-foot (91.4 m) operating range.



RHC-14 Hand Control 242211020

Miniature hand control for remote current and contactor control.

Dimensions: 4 x 4 x 3.25 inches (102 x 102 x 82 mm).

Includes 20-foot (6 m) cord and 14-pin plug.

Extension Cables for 14-Pin Remote Controls

242208025 25 ft. (7.6 m)

242208050 50 ft. (15.2 m)

242208080 80 ft. (24.4 m)

Trailers and Hitches (Note: Trailers are shipped unassembled.)



HWY-Mid Frame Trailer 301438

1,424-pound (646 kg) capacity highway trailer with welded steel tubing frame, heavy-duty axle with roller bearing hubs and leaf-spring suspension. Includes jack stand, fenders, lights, and dual hitch with 2-inch (50 mm) ball hitch and 3-inch (76 mm) lunette eye.



Cable Tree 043826

Provides an area to conveniently wrap weld cables and extension cords.



2-In-1 Document/ Fire Extinguisher Holder 301236

Stores documents and holds a five-pound fire extinguisher.

Note: Holder shown mounted on trailer. Fire extinguisher not included.

Trailer Specifications (Subject to change without notice.)

Model	Gross Axle Weight Rating	Gross Vehicle Weight Rating	Net Payload	Height of Bed	Road Clearance	Track (Center to center of tires)	Standard Tires (Standard rating or P-size rating)	Dimensions	Net Weight
HWY-Mid Frame	1,605 lb. (728 kg)	1,424 lb. (646 kg)	1,424 lb. (646 kg)	19.5 in. (495 mm)	8 in. (203 mm)	46 in. (1,168 mm)	ST175/80D-13 Load Range C	Length: 101 in. (2,565 mm) Width: 55 in. (1,397 mm)*	181 lb. (82 kg)

*Width at outside of fenders.

Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Trailblazer® 325 Diesel	907755 907755001 907755002 907755003	Kubota engine, base model Kubota engine with GFCI receptacles Kubota engine with Excel™ power and GFCI receptacles Kubota engine with Excel™ power, GFCI receptacles and ArcReach® remote control technology		
Field Options <i>Options listed below can be added to the above packages. Installation is required.</i>				
GFCI Receptacles	300975			
Cold Weather Kit	301115			
Spark Arrestor	043579			
Full KVA Adapter Cord	300517			
Full KVA Plug	119172			
Diesel Engine Filter Kit	259935	<i>Order from Miller Service Parts</i>		
Accessories				
All-Purpose Running Gear	300477	With Never Flat™ tires		
Protective Cage with Cable Holders	195331	<i>Not for use with protective cover</i>		
Protective Cover	301099			
MIG/Flux-cored Welding				
SuitCase® 12RC	951580	With Bernard™ BTB Gun 300 A. See literature M/6.5		
ArcReach® Smart Feeder	951733	For use with ArcReach models only. MIG/FCAW/RMD®/pulse feeder with Bernard™ PipeWorx 300-15 MIG gun. Tweco®-style connectors		
ArcReach® SuitCase® 8	951726	With Bernard™ BTB Gun 300 A		
	951727	With Bernard™ S-Gun™		
	951728	With Bernard™ Dura-Flux™ gun		
ArcReach® SuitCase® 12	951729	With Bernard™ BTB Gun 300 A		
	951730	With Bernard™ S-Gun™		
	951731	With Bernard™ Dura-Flux™ gun		
Spoolmatic® 30A Spool Gun	130831	Requires WC-24 control. See literature M/1.73		
WC-24 Control	137549	See literature M/1.73		
XR™ Wire Feeder Control and Guns		See literature M/1.7 through M/1.74		
Stick Welding				
			See page 7	
TIG Welding				
			See page 7	
Plasma Cutting				
			See page 7	
Remote Controls and Extension Cables				
ArcReach® Stick/TIG Remote	301325	For use with ArcReach models only		
Wireless Remote Hand Control	300430			
RHC-14 Hand Control	242211020			
Extension Cables		See page 7		
Trailers and Hitches				
HWY-Mid Frame Trailer	301438	Trailer with lights, fenders and dual hitch. For highway use		
Cable Tree	043826	Trailer-mounted cable holder		
2-In-1 Document/Fire Extinguisher Holder	301236	Stores documents and holds a 5-pound fire extinguisher		

Date:

Total Quoted Price:

Distributed by:

