



Part No: MR907788-1 [Deutz Diesel Engine]

## **High Output Capacity** for Remote Jobs

**IDEAL FOR HEAVY INDUSTRIAL APPLICATIONS INCLUDING CONSTRUCTION & MINING MAINTENANCE & REPAIR** 



**////**Miller

#### **GAME-CHANGING TECHNOLOGIES CAN STOP** YOU FROM WASTING HOURS EVERY DAY.

ArcReach welding technology minimises the non-valueadded time spent walking to and from the power source and maximises arc-on time, weld quality and job site safety.



#### APPLICATIONS

Heavy Construction Structural Steel Mining Maintenance Maintenance and Repair Rigs Process Piping

#### PROCESSES

Stick (SMAW) MIG (GMAW) Flux-Cored (FCAW) RMD\* Pulsed MIG\* (GMAW-P) DC TIG (GTAW) Air Carbon Arc (CAC-A) 5/16-inch (8 mm) Carbons

\*With optional ArcReach Smart Feeder





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#### **AUTO REMOTE SENSE™**

Detects if a remote control is plugged into the 14-pin receptacle and eliminates confusion of a remote/ panel switch.

#### **HD POWDER COAT**

With zinc-rich primer protects sheet metal from rust and corrosion.

#### **INFINITE ARC CONTROL**

Allows the arc characteristics to be changed for specific applications in Stick, TIG, MIG and FCAW

#### **LIFT-ARC TIG WITH AUTO CRATER AND AUTO STOP**

Lift-Arc TIG provides soft TIG arc starting without the use of high frequency, while Auto Crater and Auto Stop eliminates tungsten and workpiece contamination.

#### **THERMAL OVERLOAD** PROTECTION

Prevents machine damage if the duty cycle is exceeded or airflow is blocked.

#### **STANDARD FEATURES**

- > ArcReach.
- > Digital Preset Weld Meters.
- > Automatic Idle.
- > Cold Weather Starting Aids.

#### **DIGITAL METERS**

SunVision technology enables welding parameters to be viewed with greater clarity than analogue meters at virtually any angle. Meters can be seen clearly even in direct sunlight.

#### **INDUSTRIAL USB PORT**

Quickly upload the latest software and download machine log files to retrieve in-depth information such as diagnostics and machine statistics.

#### **REMOTE OIL DRAIN**

Prevents spills and makes servicing easy.

#### **ARC CONTROL**

Beneficial when welding with stick and solid wires for easier fine tuning of tough-toweld materials and out-ofposition applications.

#### **METER MAINTENANCE** DISPLAY

Includes oil pressure, coolant temperature, battery voltmeter, fuel gauge and engine hour meter.

#### **AUXILIARY POWER\***

- > 1 x 415 V 32 Amp
- 3 Phase Socket.
- > 2 x 240 V 15 Amp 1 Phase Sockets.
- > RCD

MODEL OPTIONS	PART NO.
Emergency Stop, Double Pole Battery Isolator & Lockout Device	MR907788-2
Roll Frame & Spill Tray Assembly, Emergency Stop, Double Pole Battery Isolator & Lockout Device	MR907788-3

#### LOW OCV STICK (VRD)

Reduces the open-circuit voltage to 30 volts when the welding power source is not in use. This feature is now built into the Big Blue 500X Pro for increased operator safety without compromising arc starts.

#### **HEAVY-DUTY LOW-SPEED T4i INDUSTRIAL DIESEL ENGINE**

#### POLARITY **CHANGE SWITCH**

Switch allows easy change of weld polarity, without the need to undo weld cables.

#### **3 YEAR WARRANTY**

Welder/generator is warranted by Miller for 3 years, parts and labour. Engine is warranted separately by engine manufacturer.

\*Generator auxiliary power is 60Hz, and intended for operating equipment associated with welding, such as angle grinders, drills and floodlights. Some Australian 50Hz equipmen incorporating induction motors, such as pumps, fans, air compressors, refrigeration or air-conditioners, may not operate correctly and could be damaged. Refer to appliance supplier or manufacturer to confirm suitability.





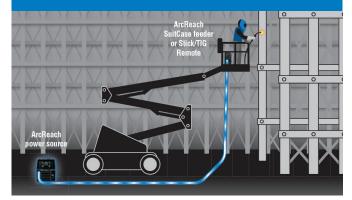


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## Arc*Reac*

#### **REMOTE CONTROL OF THE** POWER SOURCE WITHOUT A CONTROL CORD

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



#### **FEWER CABLES TO MAINTAIN**

#### **SAVE TIME**

Operators no longer need to troubleshoot welding system problems that result from damaged control cords.

#### **ELIMINATE COSTLY CONTROL CORD REPAIRS**

Because control cords are not used.

#### FLEET COMPATIBILITY

#### **CROSS PLATFORM COMPATIBLE**

The same ArcReach accessories that work on engine-driven equipment can also be used on select ArcReach-equipped XMT® and PipeWorx 350 FieldPro<sup>™</sup> power sources.

#### **REVERSE COMPATIBLE**

ArcReach-equipped power sources work with non-ArcReach accessories; however, the complete ArcReach benefit is only realised with the ArcReach system.

#### **MORE WELDS IN LESS TIME**

#### **MORE ARC-ON TIME & REDUCED EXPOSURE TO WORKPLACE HAZARDS**

Less time is spent going back to the welding power supply to set process and arc amperage or voltage.

#### **AUTO-PROCESS SELECT™**

Depending on connected accessory, the system automatically changes to stick or MIG/FCAW (with gas) if electrode positive polarity is detected or TIG or FCAW (no gas) if electrode negative polarity is detected, when ArcReach communication is established between the accessory and the Big Blue -reducing the need to access the power supply.

#### **LESS OPERATOR FATIGUE**

Operators no longer need to move or reposition heavy secondary weld leads bundled with control cords on the job site because control cables are not used.

#### AUTOMATIC RETURN **TO PANEL SETTINGS**

System automatically returns to Big Blue setting when ArcReach communication is terminated. For example, if the Big Blue is set to gouging at 500 Amps and an ArcReach feeder is connected, the Big Blue will go to a MIG/FCAW process. If the feeder is disconnected. the Big Blue will go back to its previous setting (gouging at 500 Amps).

### **BETTER WELDS WITH LESS REWORK**

#### **OPERATORS CAN PRECISELY SET ARC AMPERAGE OR VOLTAGE**

Operators can set the Amperage and voltage at the weld joint and monitor the actual arc voltage and current delivered to the weld using the digital meters on the accessory. This removes guesswork when it comes to adhering to weld procedures.

#### **REMOTE OVERRIDE OF BIG BLUE**

When an ArcReach accessory is connected to a Big Blue the accessory has full control and the Big Blue controls are disabled. While

under ArcReach control, process and voltage/ amperage adjustments are locked out, preventing accidental changes by personnel other than the welding operator.

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#### **ARCREACH SUITCASE 12 FEATURES**

#### SETTING THE STANDARD FOR PERFORMANCE

Heavy-duty drive motor with tachometer control provides wire feed speed that is accurate and consistent from the start of the weld to the finish and from one weld to the next, which provides consistent arc quality. Wide voltage range for small and large wires with no contactor chatter or arc outages.

#### **SET VOLTS & WIRE SPEED FEED REMOTELY**

The simple interface on the feeder allows operators to adjust parameters at the point of use with no control cords.

#### **EASY PROCESS CHANGEOVER**

Simply connect the ArcReach SuitCase feeder to your weld lead and you are ready to go. The power source automatically switches settings to run conventional wire processes.

#### **EASY SOLUTION** FOR TRADITIONAL WIRE PROCESS

Add the flux-cored capability of the Big Blue 500X Pro for fill and cap passes for increase productivity.

#### **DURABLE DESIGN REDUCES DOWNTIME**

Impact-resistant case and the elimination of feeder control cords provides a solid solution to last in harsh environments.



#### **ARCREACH SMART FEEDER FEATURES**

#### ARCREACH SMART **FEEDER DELIVERS EXCELLENT RMD &** PULSED MIG WELDING

Up to 60 metres away from the power source with no control cords - twice the distance previously possible. RMD and pulsed MIG processes also help reduce weld failures and eliminate backing gas on some stainless and chrome-moly applications.

#### EASY PROCESS **CHANGEOVER**

Simply connect the ArcReach Smart Feeder to your leads and you are ready to go. All controls automatically shift to the ArcReach Smart Feeder.

#### SYNERGIC PROCESSES

RMD and pulsed MIG welding permits procedures with one wire and one gas to eliminate process switch-over time.

#### **DURABLE DESIGN REDUCES DOWNTIME**

Impact-resistant case and the elimination of feeder control cords provides a solid solution to last in harsh environments.



#### **ARCREACH STICK/TIG REMOTE**

#### **COMPLETE REMOTE CONTROL**

Portable and lightweight, the ArcReach® Stick/TIG Remote paired with an Big Blue 500X Pro power source allows you to change weld settings at your work area, saving a trip to the power supply. No extra control cord to purchase, maintain, string or unstring - saving time and money.







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PRODU	PRODUCT SPECIFICATIONS						
WELD. MODE	WELD OUTPUT RANGE	WELD OUTPUT RATED AT 40° C	MAX OPEN CIRCUIT VOLTAGE	GENERATOR POWER OUTPUT RATED AT 40° C***	DIM. (MM)	WEIGHT* (WITHOUT FUEL)	
CC/DC (Stick/ TIG)	20 - 500 A	400 A at 36 V 100% Duty Cycle* 450 A at 33 V 60% Duty Cycle* 500 A at 30 V 40% Duty Cycle*	92 VDC 30 VDC**	415-380V 60Hz 3 Phase 21,000 watts peak, 15,000 watts continuous	H: 1067 H: 1258 (top of exhaust)	Net: 694kg Ship: 717kg	
CV/DC (MIG/ FCAW)	14 - 50 V			<b>240V 60Hz 1 Phase</b> 4000 watts continuous	W: 724 D: 1654	*Additional: 75kg when fuel tank is full	

\* Meets NEMA and IEC ratings. \*\*VRD voltage for Stick & Sense voltage for Lift-Arc TIG. \*\*\*Will operate either 60Hz or 50/60Hz power tools, lights, etc.

ENGINE SPECIFICATIONS							
ENGINE BRAND	HP	TYPE	FEATURES	ENGINE SPEEDS	CAPACITIES	SOUND LEVELS AT 7 M	AUTOMATIC ENGINE SHUT DOWN
Deutz D2011 L03i	32.0	Three- cylinder, oil-cooled industrial diesel	EPA Tier 4i compliant	Idle: 1350 RPM Weld: 1800 RPM	Fuel: 95 L Oil: 5.7 L	Idle: 63.4 dB (88.2 Lwa) Weld (500 A Load): 72.2 dB (97 Lwa)	Low Oil Pressure, High Coolant Temperature, Low Fuel Level





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#### WELDING PROCESS CAPABILITIES

The ArcReach® Smart feeder connected to an ArcReachequipped power supply or engine drive provides standard welding process programs specifically designed for the welding of carbon steel and stainless steel pipe. The RMD® (MIG-modified short circuit) programs and pulsed MIG programs are synergic programs designed specifically for combinations of wire type, wire diameter and shielding gas.

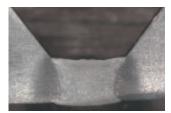
#### **RMD® (REGULATED METAL DEPOSITION)**

A precisely controlled short-circuit metal transfer that provides a calm, stable arc and weld puddle. This provides less chance of cold lap or lack of fusion, less spatter and a higher quality root pass on pipe. The stability of the weld process lessens the puddle manipulation required by the welder and is more tolerant to hi-lo conditions, reducing training requirements. Weld bead profiles are thicker than conventional root pass welds which can eliminate the need for a hot pass, improving weld productivity. In some stainless steel applications, it may be possible to eliminate the backing (purge) gas to further improve productivity and reduce welding costs.

- > Ideally suited to root pass welding
- > Consistent side wall fusion
- > Less weld spatter
- > Tolerant to hi-lo fit-up conditions
- > More tolerant of tip-to-work distance
- > Less welder training time
- > Thicker root passes can eliminate hot pass

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> Eliminate backing gas on some stainless steel applications



**RMD® CARBON STEEL** 



**RMD® STAINLESS STEEL** 

CARBON STEEL PROGRAMS		SOLID W (MM)	METAL- CORED WIRE (MM)		
		0.9	1.0	1.2	1.2
Shielding Gas	100% CO <sub>2</sub>	MIG, RMD	MIG, RMD	MIG, RMD	
	C25 (argon/ 25% C0 <sub>2</sub> )	MIG, RMD	MIG, RMD	MIG, RMD	RMD
	C20 (argon/ 20% C0 <sub>2</sub> )	MIG, RMD, Pulse	MIG, RMD, Pulse	MIG, RMD, Pulse	RMD
	C8-15 (argon/ 8-15% C0 <sub>2</sub> )	MIG, RMD, Pulse	MIG, RMD, Pulse	MIG, RMD, Pulse	Pulse

STAINLESS	MM)			
		0.9	1.0	1.2
Shielding Gas	C2 (argon/2% CO <sub>2</sub> )	MIG, RMD, Pulse	MIG, RMD, Pulse	MIG, RMD, Pulse
	98/2 (argon/2% Oxygen)	MIG, RMD, Pulse	MIG, RMD, Pulse	MIG, RMD, Pulse

# RMD Ball Transfer







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#### PULSED MIG

This method of pulse welding provides a shorter arc length, narrower arc cone and less heat input than with traditional spray pulse transfer. Since the process is closed-loop, arc wandering and variations in tip-to-work distances are virtually eliminated. This provides easier puddle control for both in-position and out-of- position welding, reducing welder training time. The process also improves fusion and fill at the toe of the weld, permitting higher travel speeds and higher deposition. This process coupled with RMD for root pass welding permits welding procedures with one wire and one gas to eliminate process switch-over time.

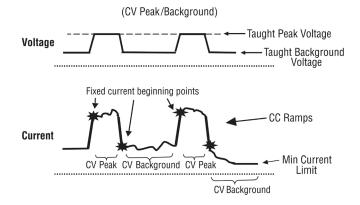
- > Ideally suited to fill and cap pass welding
- > Easier puddle control than conventional spray pulse
- Shorter arc lengths and narrow arc cone for out-of-position welding
- > More tolerant of tip-to-work variation
- > Improve fusion and fill at toe of weld
- Less heat input reduces interpass cooling time and improves weld cycle time
- > Enables one-wire with one-gas weld procedures





**PULSED MIG CARBON** 

**PULSED MIG STAINLESS** 







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ORDERING INFORM	MATION - AVAILABLE BASE PACKAGES
OPTION 1 - MIG/F	LUX CORED SYSTEM
POWER SOURCE	
MR907788-1	Big Blue 500X Pro with ArcReach Technology
WIREFEEDER (ALT	ERNATIVE WIREFEEDERS LISTED BELOW)
MR301456	ArcReach SuitCase 12
REQUIRED ACCES	SORIES
Interconnecting lea	ad kit for this option is not supplied by WIA
BEQ4015AH8EMC	Bernard 440 Amp MIG gun with rotatable long 45 deg. neck, 4.6m cable, 1.2 tip
HA801AR	Argon regulator & flow gauge
MR190300	0.9 / 1.2 mm "V" groove roll kit for solid wires
MR079607	1.2 mm knurled "V" groove roll kit for flux cored wires
MR079609	1.6 mm knurled "V" groove roll kit for flux cored wires
OPTION 2 - RMD P	ULSE SYSTEM
POWER SOURCE	
MR907788-1	Big Blue 500X Pro with ArcReach Technology
WIREFEEDER (ALT	ERNATIVE WIREFEEDERS LISTED BELOW)
MR301177	FieldPro Smart Feeder (Dinse) CE
<b>REQUIRED ACCES</b>	SORIES
Interconnecting lea	ad kit for this option is not supplied by WIA
BEQ4015AH8EMC	Bernard 440 Amp MIG gun with rotatable long 45 deg. neck, 4.6m cable, 1.2 tip
HA801AR	Argon regulator & flow gauge
MR190300	0.9 / 1.2 mm "V" groove roll kit for solid wires
MR079607	1.2 mm knurled "V" groove roll kit for flux cored wires
OPTION 3 - MIG /	FLUX CORED SYSTEM
POWER SOURCE	
MR907788-1	Big Blue 500X Pro with ArcReach Technology
WIREFEEDER (ALT	ERNATIVE WIREFEEDERS LISTED BELOW)
MR301499	20 Series Wirefeeder [Basic]
REQUIRED ACCES	SORIES
AM294-0/10	Interconnecting lead kit with earth leads - 10m dinse
BEQ4015AH8EMC	Bernard 440 Amp MIG gun with rotatable long 45 deg. neck, 4.6m cable, 1.2 tip
HA801AR	Argon regulator & flow gauge
MR190300	0.9 / 1.2 mm "V" groove roll kit for solid wires
OPTIONAL ACCESS	
MR242211020	RHC-14 remote hand current control
MR300430	Wireless hand control & 14 pin receiver
MR300429	Wireless foot control & 14 pin receiver
MR301325	ArcReach Stick/TIG Remote
BEQ4010AR8EMC	400 Amp MIG gun with fixed medium 45 deg neck 3.0m cable 1.2 tip