

 ENGINE DRIVEN

CC  
CV

DC

1  
Phase



# Big Blue<sup>®</sup> 400X Pro

with **ArcReach** Technology

Part No: MR907732011-1 [Kubota Diesel Engine]

## The Professional Welder's Choice

DESIGNED WITH THE PROFESSIONAL IN MIND,  
THE BIG BLUE 400X PRO IS THE BEST FOR  
EASE OF USE, RELIABILITY & FUEL ECONOMY



**DON'T WALK WELD<sup>™</sup>**

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

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



### APPLICATIONS

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)  
Rated: 4.8mm (3/16 in) carbons  
Capable: 6.4mm (1/4 in) 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.

## MODEL OPTIONS

## PART NO.

Emergency Stop, Double Pole Battery Isolator & Lockout Device

MR907732011-2

Roll Frame & Spill Tray Assembly, Emergency Stop, Double Pole Battery Isolator & Lockout Device

MR907732011-3

## ARC CONTROL

Beneficial when welding with stick and solid wires for easier fine tuning of tough-to-weld materials and out-of-position applications.

## AUXILIARY POWER\*

- > 1 x 240 V 60Hz 32 Amp 1 Phase Socket.
- > 2 x 240 V 60 Hz 15 Amp 1 Phase Socket.
- > RCD.

## 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 400X Pro for increased operator safety without compromising arc starts.

## HEAVY-DUTY LOW-SPEED INDUSTRIAL DIESEL ENGINES

### 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 equipment 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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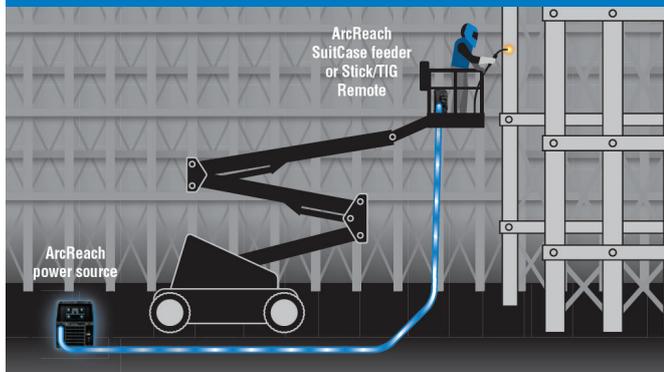
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## ArcReach®

**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.



## 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 400 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 400 Amps).



## 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™ 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.



## 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. Front panel has trigger hold, wire jog, and gas purge for easy operator access. 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 SOLUTION FOR TRADITIONAL WIRE PROCESS

Add the flux-cored capability of the Big Blue 400X Pro for fill and cap passes for increase productivity.

### 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.

### 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.

### DURABLE DESIGN REDUCES DOWNTIME

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

### SYNERGIC PROCESSES

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

## ARCREACH STICK/TIG REMOTE



### COMPLETE REMOTE CONTROL

Portable and lightweight, the ArcReach<sup>®</sup> Stick/TIG Remote paired with an Big Blue 400X 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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## WELDING PROCESS CAPABILITIES

The ArcReach<sup>®</sup> Smart feeder connected to an ArcReach-equipped power supply or engine drive provides standard welding process programs specifically designed for the welding of carbon steel and stainless steel pipe. The RMD<sup>®</sup> (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<sup>®</sup> (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
- > Eliminate backing gas on some stainless steel applications

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

STAINLESS STEEL PROGRAMS		SOLID WIRE (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

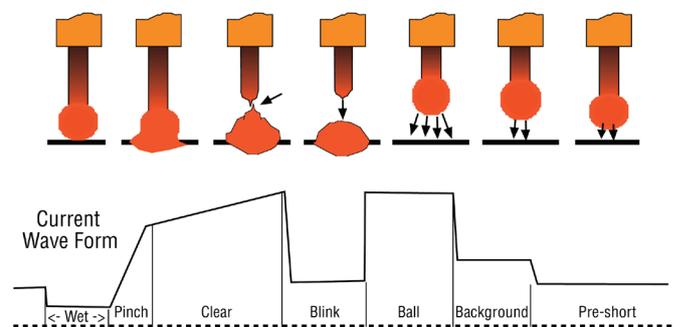


**RMD<sup>®</sup> CARBON STEEL**



**RMD<sup>®</sup> STAINLESS STEEL**

### 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.

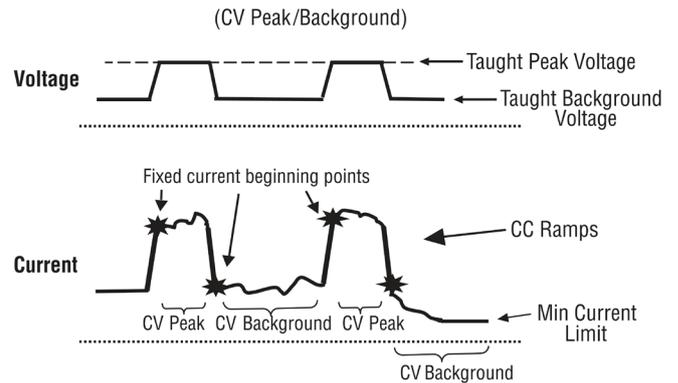
- > Ideally suited to fill and cap pass welding
- > Easier puddle control than conventional spray pulse
- > Shorter arc lengths and narrow arc cone for out-of-position welding
- > More tolerant of tip-to-work variation
- > Improve fusion and fill at toe of weld
- > Less heat input reduces interpass cooling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



PULSED MIG CARBON



PULSED MIG STAINLESS



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## 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 – 400 A	300 A at 32 VDC, 100% Duty Cycle 350 A at 27 VDC, 100% Duty Cycle 400 A at 24 VDC, 100% Duty Cycle	85 VDC 30 VDC**	12,000 watts peak, 10,000 watts continuous 42 A, 240 VAC, 60 Hz	H: 813 W: 667 D: 1422	Net: 431kg Ship: 456kg  *Additional: 37kg when fuel tank is full
CV/DC (MIG/FCAW)	14 – 40 V					

\* 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	AUTOMATIC ENGINE SHUT DOWN
Kubota V1505	20.2	Four-cylinder, liquid-cooled industrial diesel	EPA Tier 4 Final compliant	Idle: 1500 RPM Weld: 1800 RPM	Fuel: 43.5 L Oil: 5.7 L Coolant: 5.7 L	Low Oil Pressure, High Coolant Temperature, Low Fuel Level



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## ORDERING INFORMATION - AVAILABLE BASE PACKAGES

### OPTION 1 - MIG/FLUX-CORED SYSTEM

#### POWER SOURCE

MR907732011-1 Big Blue 400X Pro with ArcReach Technology

#### WIREFEEDER (ALTERNATIVE WIREFEEDERS LISTED BELOW)

MR301456 ArcReach Suitcase 12

#### REQUIRED ACCESSORIES

Interconnecting lead 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 PULSE SYSTEM

#### POWER SOURCE

MR907732011-1 Big Blue 400X with ArcReach Technology

#### WIREFEEDER (ALTERNATIVE WIREFEEDERS LISTED BELOW)

MR301177 FieldPro Smart Feeder (Dinse) CE

#### REQUIRED ACCESSORIES

Interconnecting lead 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

MR907732011-1 Big Blue 400X Pro with ArcReach Technology

#### WIREFEEDER (ALTERNATIVE WIREFEEDERS LISTED BELOW)

MR300615 22A wirefeeder - standard

#### REQUIRED ACCESSORIES

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 ACCESSORIES

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