

## SPECIFICATION

		RX 2	RX 4	RX 4R
<b>Drive System</b>		2 Roll direct drive	4 Roll geared drive	4 Roll geared drive
<b>Speed Range</b>		1 – 25 m/min.	1 – 25 m/min.	1 – 25 m/min.
<b>Supply Voltage</b>		24v or 42v a.c.	24v or 42v a.c.	24v or 42v a.c.
<b>Motor Power</b>		90W	90W	90W
<b>Wire Sizes</b>				
	<b>Hard</b>	0.6 – 1.2 mm	0.8 – 1.6 mm	0.8 – 1.6 mm
	<b>Soft</b>	0.8 – 1.6 mm	0.8 – 1.6 mm	0.8 – 1.6 mm
	<b>Cored</b>	1.0 – 1.2 mm	1.0 – 1.6 mm	1.0 – 1.6 mm
<b>Dimensions</b>				
	<b>Height</b>	265 mm	265 mm	265 mm
<b>( Approx.)</b>	<b>Width</b>	320 mm	320 mm	320 mm
	<b>Length</b>	600 mm	600 mm	600 mm
<b>Weight</b>	<b>( Approx.)</b>	15.5 kg	15.5 kg	15.5 kg

**N.B. Claimed capacities and ratings will depend upon correct installation, use, application, maintenance, and service.**

## GENERAL DESCRIPTION

The Rx 2, and Rx 4 wire feed units have been designed for use, in MIG / MAG welding installations, to feed all types of wire. The units are fully EMC tested and carry the CE mark. An industry standard quick fit euro connector allows the full range of air and water-cooled torches to be fitted quickly and easily. When using water-cooled torches the optional water adaptor kit must be fitted. Wire is fed from the unit by either two or four driven rolls. The rolls are driven by a powerful d.c. motor via a worm drive and spur gear assembly. The driving pressure can be adjusted over a wide range to compensate for different wire types and welding conditions. Standard features of the unit include, sturdy base plate fitted with 3" castors, continuously variable wire feed speed, wire inching, gas purge, and torch switch latching facility. The unit is fitted with a plastic hub designed to take a standard reel of wire, a range of basket adaptors are available, if required, as an option. The unit is available in a choice of three colours, red, yellow and blue

## OPERATION

The Rx 2, and Rx 4 wire feed units, apart from the feed block assembly fitted, are identical. The units are activated through two switch wires connected to the pins of a standard euro type central adaptor. The switch circuit is fused by a 2 amp fuse located at the rear of the unit, to protect from short circuits, or faults in the welding torch. The switch circuit is routed through a latching switch which allows selection of "2 touch" or "4 touch", as it is commonly known.

### Latched (4 touch) operation:

On pulling and holding the torch trigger and making a circuit, only the gas solenoid will energise allowing an operator controlled pre-weld gas purge. On releasing the trigger the motor circuit will energise simultaneously with the contactor being energised and welding will commence and continue until the trigger is pressed again. If no pre-weld gas purge is required, the start process can be an instant press – release of the torch trigger.

On pulling and holding the torch trigger and making a circuit a second time, motor circuit will de-energise simultaneously with the contactor being de-energised and welding will cease. Gas flow will continue until the trigger is released to give an operator controlled post-weld gas purge. If no extended post-weld gas purge is required, the end process can be an instant press – release of the torch trigger, and the standard burn off and post-gas delay will come into play. (see below)

### Standard non-latched (2 touch) operation:

On pulling and holding the torch trigger and making a circuit, the gas solenoid, motor circuit and contactor will all energise simultaneously and welding will commence and continue until the trigger is released.

On releasing the torch trigger, the motor circuit will de-energise and after a short delay (burn back – see below) the contactor and gas solenoid will de-energise and welding will cease.

### Gas purge

Pressing the gas purge activates only the gas solenoid for purge or test purposes.

### Wire inch

Pressing the wire inch activates only the motor wire feed drive for feeding wire through without the torch being live.

### PCB control card

The PCB controls the motor, which includes a variable speed control from the potentiometer on the front panel, with minimum and maximum pre-sets on the PCB. A start function, which ramps up to the set speed, this helps reduce power surge and is adjustable on a pre-set on the PCB, and a re-generative or dynamic braking of the motor when de-energised.

The PCB also controls the gas solenoid and the power source main contactor. These are both energised immediately, but on de-energising undergo a delay to ensure that the wire does not stick, and that a slight gas delay occurs. These delays are linked to the motor speed, so that as the motor speed (eg wire feed rate) increases, the delay also increases. this delay should require no adjustment, but if required can altered using a pre-set on the PCB. The PCB is powered by either 24 or 42 volts AC.

### Motor

The motor is a simple permanent magnet DC motor with an integral worm and wheel gearbox. It should require no attention throughout its life. When worn, it should be replaced as a unit.