

Oxford

MULTIMIG CS range of Compact / Separate wire feed MIG welding machines



Caution before installing or operating this machine ensure all instructions and warnings have been read and understood.

INSTRUCTION MANUAL

Safety Guidelines

This machine is designed for use only by experienced operators only. All users must be competent, trained & familiar with welding processes and safe electrical practices.

Before using this product, you should carry out a risk assessment & take appropriate action to minimize all risks.

Some of the risks involved are listed below.

- **Risk of burns & eye damage.**
- **Risk of electrocution.**
- **Risk to health from welding fume inhalation.**
- **Risk of fire caused by welding sparks etc.**
- **Risk from installing & using welding gas & cylinders.**
- **Risk of pacemaker malfunction from strong magnetic fields.**
- **Risk of bodily crush damage from wire drive system gears & rollers.**
- **Risk from a build up of gas in confined spaces.**
- **Risks from welding wire, sharp wire can cause blindness or other injury.**
- **Other risks may be present.**

The British Health and Safety Executive publish documents regarding this such as ISBN 0717607046 (Electrical safety in arc welding), and many others.

For outdoor use this machine should be sheltered from rain etc, the enclosure gives protection to IP23S.

Only use this machine in the upright position.

Only use correct type of 'MIG' gas, never use any gas not designed for arc welding.

Do not obstruct the ventilation on the rear or front of this machine.

Do not try to connect this unit to any other supply other than what's marked on the rear.

Always keep this machine maintained in accordance with this manual & good workshop practice.

DO NOT TAKE ANY UNNECESSARY RISKS

Pre installation & EMC information

The installer of this equipment must make an assessment of the area before installing.

It is the user's responsibility to ensure that if any electromagnetic disturbances are detected to resolve this before continuing.

As with other welding machines it is preferable to use this machine as far away as possible from sensitive electrical or electronic equipment such as computers, telecom equipment, safety critical equipment, transmitters and receiving equipment etc.

There is a risk to sensitive equipment from radiated or conducted emissions from this machine.

This machine is designed for use in industrial premises, when used in other environments there could be potential difficulties with electromagnetic interference with other equipment.

Consideration must be also given to other premises as the emissions may not be limited to the installed premises.

The following are methods to reduce emissions.

- 1) Keep all welding cables short close together and at ground level.
- 2) Equipotential bonding of metal components in the work area and bonding of the work piece can be considered however there are electrical safety implications for the operator with increased risk of shock if the electrode is touched; therefore it is important the operator is aware and adequately protected from making contact with the work and the electrode. **Before bonding the area and work piece consult an experienced electrician.**
- 3) This equipment must be properly maintained and all screws holding the sides etc kept in place.
- 4) Sometimes it may be necessary to fit additional mains input filters or even screen the cables and / or work area. This will involve consulting an experienced engineer.

Declaration of conformity

Oxford MULTIMIG CS range 270-510A MIG welding machines

This equipment is manufactured to comply with 2006/95/EEC, BS EN 60974-1

This equipment is manufactured to comply with 89/336/EEC, BS EN 60974-10

This equipment is manufactured to RoHS directive 2006/95/EU



Date 01/02/2023

R P Rycroft *R Rycroft* Oxford Welders, Technical Arc Ltd, York UK

Overview

Heavy duty Inverter MIG, with 4 roll wire drive, MMA ARC welding & DC TIG, real industrial machines built to work hard for 25+ years. Simple to use but packed full of features to provide superior welding performance with ultra low power consumption. One power source covers both compact & SWF MIG. Simply plug in our 4X wire feeder & you have SWF MIG!

Guaranteed better welding performance than any traditional transformer MIG! Low spatter, instant arc starts, infinite control of output to 1A & 0.1V. Despite the performance benefits these are even simpler to set & use than our old transformer based machines & are a real joy to weld with. Weld anything from the thinnest car panels up to structural steel buildings & large earth moving equipment for the biggest models.

Technical Specifications

Technical specifications Oxford MULTIARC CS three phase models				
Model	CS273	CS333	CS413	CS513
Supply voltage	400V	400V	400V	400V
Welding range (amps)	20-270	20-330	20-410	30-510A
Duty cycle @ Max. amperage	270A@35%	330A@40%	410A@45%	510A@45%
Duty cycle 60% @	205A	260A	355A	450A
Open circuit volts	70V	70V	72V	72V
Fuse rating slow blow (Type D)	16A	16A	16/25A	25/32A
Minimum generator / transformer rating*	5.5KVA	7KVA	10KVA	12.5KVA
Dimensions (inc. rear wheels) (all models)	840mm (L) x 460mm (W) x 650mm (H)			
Total weight approx.	47KG	51kg	54kg	60kg
Wire feed system	4x4 geared	4x4 geared	4x4 geared	4x4 Geared
MIG wire range	0.6-1.0mm	0.6-1.2mm	0.6mm-1.6mm	0.6mm-1.6mm
Work lead (earth)	3M	3M	3M	3M
Mains input lead	3M rubber	3M rubber	3M rubber	3M rubber

Technical specifications Oxford MULTIARC CS single phase 230V models			
Model	CS271	CS331	CS411
Supply voltage	230V	230V	230V
Welding range (amps)	20-270	20-330	20-410
Duty cycle @ Max. amperage	270A@35%	330A@40%	410A@45%
Duty cycle 60% @	205A	260A	355A
Open circuit volts	70V	70V	72V
Fuse rating slow blow	16/25A*	25/32A	32/45A*
Min. generator / transformer rating*	5.5KVA	6.8KVA	10KVA
Dimensions (inc. rear wheels) (all models)	840mm (L) x 460mm (W) x 650mm (H)		
Total weight approx.	48KG	52kg	55kg
Wire feed system	4x4 geared	4x4 geared	4x4 geared
MIG wire range	0.6-1.0mm	0.6-1.2mm	0.6-1.2mm
Work lead (earth)	3m	3m	3m
Mains input lead	3m rubber	3m rubber	3m rubber

* Note the input fuse size on single phase models is a result of our calculations & tests, it is possible to use any of these models on a lower fuse size at lower welding power. We recommend always using a 'D' type circuit breaker to avoid intermittent tripping & in some instances you may experience intermittent tripping if using close to maximum settings. *The min KVA rating quoted is for up to 3/4 power output, to achieve max output we suggest increase KVA by 40%.

Installation

Unpacking - Check the packaging for any signs of damage. Carefully remove the machine and retain the packaging until the installation is complete.

Assembling the machine

For transportation, the wheels and bottle tray are not fitted to help prevent damage and make transporting easier. Use the M8 hex screws, washers and nuts in the clear bag to fix the bottle tray onto the back of the power source. Make sure all the screws are used and tightened up, and that the bottle tray is secure. The axle is already fixed to the bottle tray and ready for the wheels to be fitted. Fit a large washer that are in the clear bag on the axle first then the wheel and then another large washer next to the wheel. Use the split pin to slot through the hole in the axle to secure the wheels on in place.

The front castors are secured onto the machine using two M8 hex screws onto the outrigger and two M8 hex screws into the captive nuts under the machine for each castor. Lift the front of the machine and prop it up high enough to get the castors bolted in. Make sure the machine is propped up safely before unscrewing out the two M8 hex screws from the captive nuts for each castor. Fix the castors in place using all four M8 screws and fully tighten.

Notes for positioning the machine: Make sure there is adequate clearance at the front and rear of the machine to allow good air flow to circulate through the machine.

Ensure that the machine is positioned in such a way that particles created by grinding and cutting operations do not enter the machine. NOTE! Damage caused by metal particles and water entering the machine will not be covered under warranty

Electrical Installation

This machine must be connected to the electricity supply by a competent person

Connecting to mains supply

Make sure that the mains supply is of the correct voltage and current capability for the machine.

Ensure that if any extension cables used are of sufficient current carrying capacity. Ensure that the mains plug fitted (and socket if fitted) are in good condition and they are the correct current carrying capacity.

NOTE! See technical specifications page for correct supply information

Do not connect this machine to any voltage other than what is stated on the spec plate and marked on the rear of the machine.

230V single phase models

Make sure your supply voltage matches the voltage model of the Machine. Ensure the green/yellow wire is connected to the earth terminal in the mains plug the other two wires are normally blue and brown wires which must be connected to the appropriate voltage, the blue is neutral and the brown is live, in some instances the colours of the live & Neutral may be both black, in which case it is not important which way around they are connected but the green/yellow wire must always be connected to the earth terminal in the plug.

400V three phase models

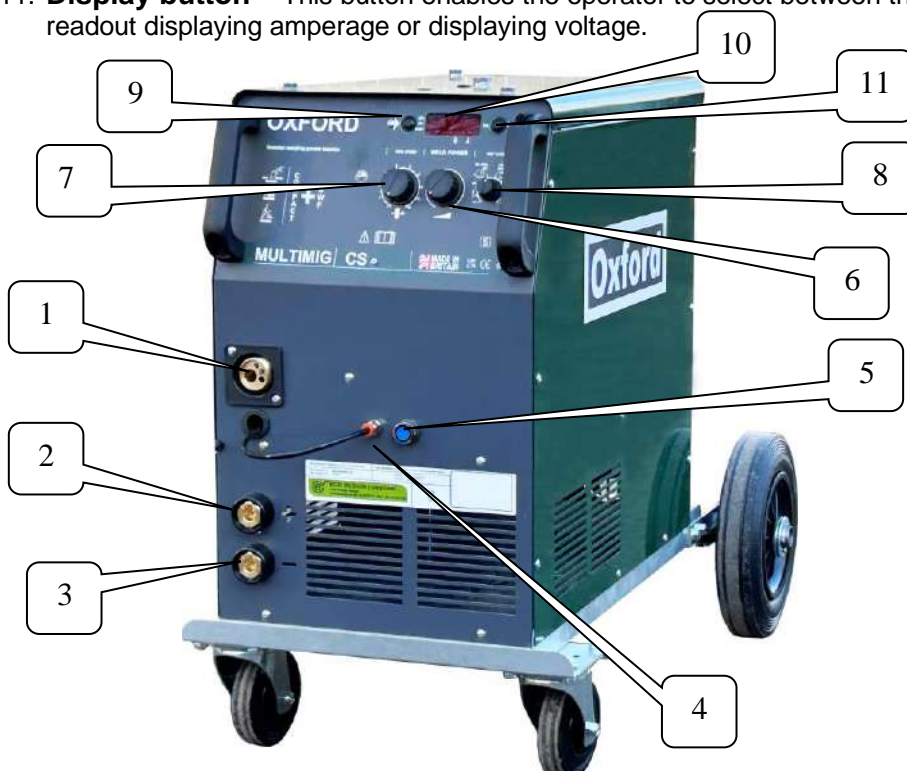
Make sure your supply voltage matches the voltage model of the Machine. Ensure the green/yellow wire is connected to the earth terminal in the mains plug.

The other three wires are normally coloured or can be all black, these connect to R, S, T or L1, L2, L3 in the plug in any order. If the plug is a 5 pin type, do not connect the N or neutral to anything.

If in doubt consult a qualified electrician.

Functions & Controls

1. **Euro torch connector** – Connection for Mig torch.
2. **Welding positive Dinse connector** – Connection for positive welding output. For standard MIG welding, plug the dinse plug from the torch into the positive dinse socket. For welding reverse polarity with flux cored wire etc, connect the dinse plug from the torch into the negative and the earth return lead into the positive dinse socket. In MMA mode the electrode lead plugs into the positive dinse connector for standard electrodes or the earth return lead plugs in for reverse polarity.
3. **Welding Negative Dinse connector** – Connection for Negative welding output. For standard MIG welding, the welding earth cable connects to negative dinse socket. For welding reverse polarity with flux cored wire etc, connect the dinse plug from the torch into the negative and the earth return lead into the positive dinse socket. In MMA mode the welding return lead plugs into the welding negative dinse socket for standard electrodes or the MMA lead plug into it for welding reverse polarity.
4. **Gas connection** – This connector is for the gas output. For compact mig use, connect the hose from the euro connector. For use with a separate wire feed unit plug in the interconnection gas hose
5. **Remote connector** – This connector enables a separate wire feed unit to be plugged in.
6. **Weld Power control** – This dial is used to set the welding power. In CV mode it sets the welding voltage. In CC (MMA) mode it is used to set the welding current.
7. **Wire feed speed control** - This dial is used to set the wire feed speed when in CV (mig) welding mode.
8. **ARC TUNE** – This dial enables the operator to adjust the arc condition. In MIG (CV) welding mode the 1- 5 adjusts the inductance of the weld. 1 being least inductance to 5 being max inductance. In MMA (CC) mode the 1 – 5 adjusts the amount of Arc force. 1 being no arc force to 5 being max arc force.
9. **Mode button** - This push button enables the operator to select between MMA, 2T or 4T mode. 2T mode is welding with their finger is on the torch trigger all the time (Normal trigger mode). 4T (latch mode), they can press and release the torch trigger and it will keep on welding until you press and release the torch trigger again. MMA mode makes the machines output live all the time for stick welding.
10. **Display** – The LED readout displays the real amperage and voltage whilst welding. When not welding the readout displays a preset value. In MMA mode the preset amperage can be set before welding. In CV mode the preset voltage can be set before welding.
11. **Display button** – This button enables the operator to select between the LED readout displaying amperage or displaying voltage.



Wire feed unit & inter connection lead

The power source has the option to plug in the MULTIMIG 4X separate wire feed unit & inter-connection lead. This enables the operator to either keep the feeder on top of the power source or lift the wire feeder off and take closer to the work.

The length of the inter connection lead is 5M as standard, but there is the option of fitting a longer inter-connection leads up to 20M.

No controls or functions are fitted on the wire feed unit which improves ruggedness & reliability of the feed unit. The welding parameters are set via the controls on the power source.

The wire feed unit interconnecting lead plugs into the connections on the front of the power source, always make sure they are tightly connected & secure.



Fitting the MIG welding wire & torch

Risk of crush damage to fingers etc, from wire feed rollers & gears, switch machine to off before touching wire drive mechanism, & keep guard in place.

Always use good quality, clean, rust free wire.

Firstly, check that the size of groove in the wire feed roller matches the size of the wire being used. The roller has two different size grooves which can be removed & changed around.

Fit the wire reel onto the spool holder & secure with the plastic nut, make sure that the end of the wire is perfectly straight, then push the tension levers to a side & manually feed the wire through the inlet guide, over the groove of the rollers and through small hole in the brass guide tube until the wire appears out at the front of the machine a few centimeters. Place the wire tensioning arms back into position & set the pressure device so that the wire feeds through the torch without slipping but if the wire hits the workpiece without arcing it then slips on the roller. Ensure the welding torch is fitted tightly to the Euro connector on the front of the wire feed unit.

The wire spool holder has a tension screw or nut in the middle which can be adjusted to make sure that the wire spool does not run on at the end of a weld, if the wire is running on there is a risk of the wire falling off the spool & then not feeding correctly for the next weld.

Welding with this machine

First ensure you are familiar with all risks & have taken necessary precautions.

With the machine all set up ready to MIG weld, the operator should first set the welding power required to suit the thickness and type of weld to be carried out. As the welding power is adjusted the welding voltage selected is shown in the LED displayed. A little trial and error is required when first setting the welding voltage. Its generally better to start with a lowish voltage setting and increase if needed.

Next set the wire feed speed to suit the welding power set and the wire size being used.

You should start initially with some scrap metal, the welding torch should be held over the material so that the outer nozzle is around 5mm away from the job and at around 60-70° to the job.

Make sure your eyes are protected by the welding mask, then press the torch switch and attempt to weld watching through the lens of the mask.

For welding at currents below 250A (dip transfer) a good arc condition is achieved when a consistent buzz or crackle is heard from the arc. If the arc is very bright and trying to burn back to the contact tip, then increase the wire speed a little, if the arc is stubbing out or pulsing badly or if the wire is trying to push the torch away from the job, then turn the wire speed down a bit.

To finish a weld simply release the torch switch but keep the torch in place for a second, this allows the wire to burn back from the arc a little. If you pull away the torch too quickly then the welding wire may have too long a stick out from the torch each time. This machine has a burn back control fitted internally to stop the wire fractionally before the welding arc finishes to achieve the correct wire stick out.

As mentioned earlier the angle of the torch to work is around 60 – 70°; however this can be changed to suit different conditions.

The direction of travel affects the weld a little, pulling the torch tends to create a narrower more prominent weld. Whilst pushing the torch gives a wider more penetrating weld.

DO NOT TAKE ANY RISKS WHEN USING THIS MACHINE

MIG welding basics

The normal process of MIG welding involves an electric arc, a consumable wire and a shielding gas.

The electrical arc creates the heat which melts both the welding wire and the material being welded, the result is a weld pool which is protected from the atmosphere by the shielding gas, or by flux if using a special gas-less wire. Without the shielding gas oxygen, other gases would contaminate the weld pool to create a weak porous unusable weld.

The welding current used for MIG welding is DC (direct current).

The output characteristics of most MIG welding machines is of the constant voltage type (CV). Therefore, when the voltage has been selected on the machine its value remains fairly constant, only dropping a little with increasing current draw.

For the vast majority of MIG welding the electrode (wire) is positive potential with the work being negative.

MIG welding below 250A is normally carried out in dip transfer mode this means that the wire is constantly dipping into the welding pool & burning back which creates a stable crackle or buzzing sound if set up correctly. MIG welding above 250A is done in spray transfer mode, where the wire constantly burns off into the weld pool without constantly dipping into the pool. This results in a more stable quiet arc.

Every machine has a certain level of inductance in its output circuit. This inductance greatly affects the welding performance of the machine when welding in dip transfer mode below 250A. Too high a value would result in a hot unstable arc, too low a value would give rise to excess splatter and a cold poorly penetrating weld.

The amount of inductance on this machine can be varied using the ARC TUNE control. The higher the weld power, generally the more inductance is required. By varying the inductance, the amount of splatter produced in the weld can be reduced to a minimum to give a nice clean weld.

The welding voltage selection on all models of machines is the main control of the actual heat input into the welding pool, the higher the volts the more power.

MIG welding voltage range is from 14v to 44v.

The wire speed control and the wire size selected both affect the actual value of welding current achieved at a given welding voltage.

Gas

The gas used for MIG welding can vary from 100% to co2 to mixtures of argon and co2, to pure argon with other special applications gases also available. The choice of gas depends upon the material being welded. For mild steel welding pure co2 can be used however it gives a cold and splattery weld and is not particularly nice to use. Argon with co2 content between 5% and 20% generally gives the best results, pure argon results in an arc which is flary & too hot for mild steel. For stainless steels and aluminium welding pure argon is normally used, however some specialist gases such as helium mixtures are available from gas outlets which may sometimes give benefits, consult your local gas specialist for further information.

The correct gas flow is essential, too little flow can result in a porous weak weld, too much and the arc can become unstable and harsh.

The gas flow should be set on the regulator or flow meter to suit the welding conditions; higher welding current needs a higher gas flow, the correct flow rates are between 2-25 litres per min. Start with a very low flow rate, as a guide you should be able to only just hear the gas flowing from the nozzle when pulling the torch switch.

Never try to use a gas not intended for MIG welding

MIG wire

The MIG welding wire used is generally selected to be very similar to the material being welded, for instance to weld stainless steel you would not use a mild steel wire and so on. The diameter of MIG welding wire should be selected according to the power and thickness of material being welded. 0.8mm wire is the smallest recommended size & is suitable for between 30 and 180amps for automotive & light fabrication or maintenance.

1.0mm wire covers the range from about 80amps to 250amps (repairs + medium fabrication).

1.2mm would be suitable from 250amps to 450amps (heavy fabrication).

1.6mm & 2.4mm are for the very heaviest fabrication applications above 350amps.

The above sizes and current ranges are approximate only, as many other factors need to be considered such as the gas used, the material being welded etc.

Always keep the MIG wire dry & rust free, do not use if the wire is rusty

Trouble shooting guide

Problem

Machine stops welding after a period of use on higher settings but fan still runs. The display shows "F".

Solution

Possible overheated internal components caused by duty cycle being exceeded, leave machine switch on for around half an hour & retry, ideally reduce output power or welding time to prevent re-occurrence. Otherwise damage can occur.

Problem

Machine stops welding & fan also stops.

Solution

Possible mains supply failure or blown mains fuse, replace fuse & check supply is OK

Problem

Machine stops welding but fan still runs

Solution

Possible torch fault or PCB fault, remove welding torch, remove the wire tensioner device so wire cannot feed, using a short link wire connect together the two contact sockets on the torch euro connector on the front of the machine, if the motor then runs & you here a click inside the machine then it's a torch fault, if not it's a possible PCB fault you should contact your supplier.

Problem

Machine welds but arc is a bit erratic & pulses

Solution

Possible wire feeding fault, check the tension on the wire drive arm, it should not be too high or too low, around half way is a good setting, check the torch liner is in good condition, renew if necessary, check the liner is the correct size to match the wire, this is very important as the wire can oscillate in the torch, normally a blue liner is suitable for 0.6 & 0.8mm wire, a red liner for 1.0 & 1.2mm only.

Try to keep the torch straight it assists the feeding of wire.

Possible too high a speed setting on the wire speed control.

Problem

Machine welds but wire often burns back to the tip or sticks inside the tip.

Solution

Change the torch contact tip; make sure it is the same size as the wire being used. Check the torch liner is the correct size for the wire (see above) & in good condition, check the tension on the wire tensioner.

Problem

Weld has some small bubbles noticeable

Solution

Gas flow problem, check the gas flow rate is adequate, clean out the nozzle or replace nozzle if damaged, make sure the torch is in good condition & check for gas leaks from the torch or machine or regulator as air can be drawn into a leaking regulator or hose.

Problem

Wire burns back & sticks to contact tip after welding

Solution

Burnback control may need adjusting. A preset on the front panel PCB allows the burnback time to be adjusted.

Problem

Wire sticks to the workpiece after welding

Solution

Burnback control may need adjusting. A preset on the front panel PCB allows the burnback time to be adjusted.

For any other faults contact your supplier

Maintenance - general user/operator

General

These models are designed to be easy to maintain with little to go wrong however sensible basic maintenance should be carried out to maintain reliable operation.

Firstly, cables can easily become damaged in an industrial environment, the operator should carry out daily checks of all cables, welding cables and connections etc; any faults must be reported to a competent person and the machine taken out of service until repaired. Particular attention should be paid to the mains input cable to ensure it is kept safely away from anything which may damage it. In the event of any crush damage, insulation damage or other damage, isolate the machines supply at the wall immediately.

Any wheels & running gear should be regularly checked for condition, with particular attention paid to the rear wheels & axles etc.

The welding torch & wire feed roller mechanism needs to be checked & cleaned regularly to ensure best performance; the torch liner will need replacing after a few rolls of wire or every few months.

The wire feed rollers & gears should be replaced each year for optimum feeding, or sooner in production environments.

Internal & engineer maintenance

It is necessary for a comprehensive service inspection and test to be carried out at regular intervals by a competent person and documented; this should also include an electrical safety test to BS EN IEC60974-4

This should be no less than every 12 months and sooner in harsh operating conditions.

Do not attempt any electrical repairs without first isolating any incoming mains power supply.

Do not attempt any electrical repairs unless fully competent.

Do not attempt any maintenance or inspection of any feed mechanisms or fans or other moving parts without switching machine to off or there is a risk of injury.

The outer covers from the power source should be removed & any dust cleaned out with particular attention made to dust build up on or around the main components. All internal connections & wiring should be inspected for any signs of overheating or failure. Particular attention should be paid to the main rectifier connections, main choke connections & all output socket connectors.

Earth continuity from mains plug PE pin to machines outer case = 0.1Ω or less.

Contact your supplier for assistance with any faults.

If correctly maintained this machine should give a long trouble free life.

We aim to offer the very best long term support for your OXFORD machine.

Your supplier should be able to organize all service, testing & supply of spares for this machine, if not please contact us directly at sales@oxfordwelders.co.uk.

Or telephone 01904 410041 (overseas 0044 1904 410041)

Description	CS 273 Part number	CS 333 Part number	CS 413 Part number	CS 513 Part number	CS 271 Part number	CS 331 Part number	CS 411 Part number
Large Side panel	1003105	1003105	1003105	1003105	1003105	1003105	1003105
Small side panel	1003106	1003106	1003106	1003106	1003106	1003106	1003106
Door panel	1003107	1003107	1003107	1003107	1003107	1003107	1003107
Front panel & screen	1003108	1003109	1003110	1003111	1003112	1003113	1003114
Handle	1003115	1003115	1003115	1003115	1003115	1003115	1003115
Large control knob	1003116	1003116	1003116	1003116	1003116	1003116	1003116
Small control knob	1003117	1003117	1003117	1003117	1003117	1003117	1003117

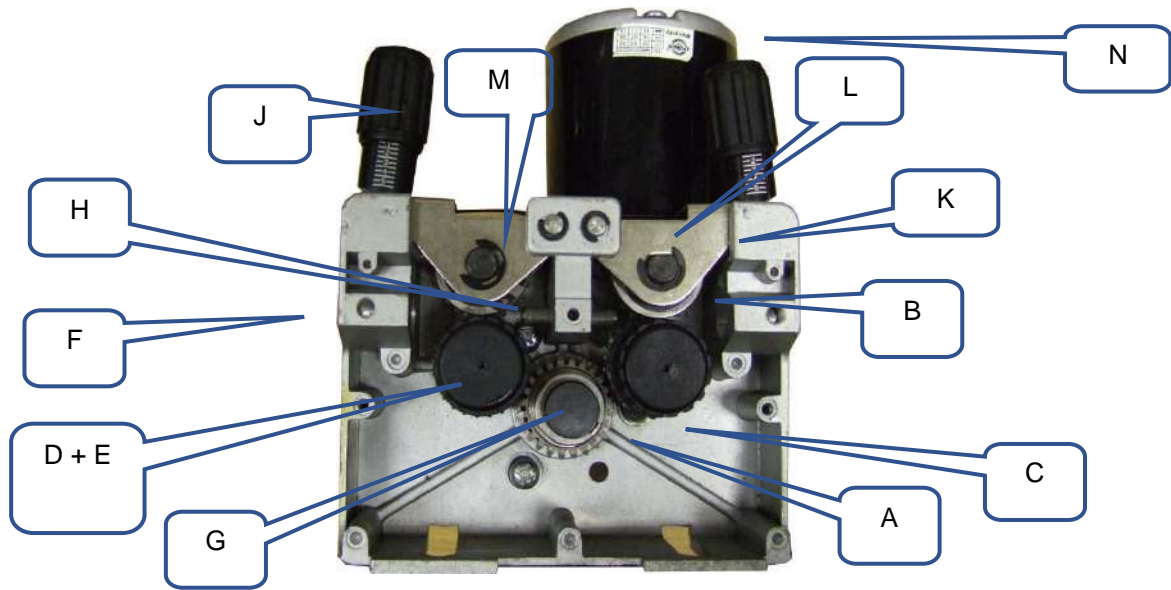
Parts list – Optional watercooling Parts

Description	CS 273 Part number	CS 333 Part number	CS 413 Part number	CS 513 Part number	CS 271 Part number	CS 331 Part number	CS 411 Part number
Water pump							
Radiator							
Fan	1002003 (2 of fitted)	1002003 (2 of fitted)	1002003 (2 of fitted)	1002003 (2 of fitted)	1002003 (2 of fitted)	1002003 (2 of fitted)	1002003 (2 of fitted)
Mains Input PCB (water cooled)	1003016	1003016	1003016	1003016	1003017	1003017	1003017
Aux. Transformer	1003118	1003118	1003118	1003118	1003118	1003118	1003118
Red water snap fitting	1003119	1003119	1003119	1003119	1003119	1003119	1003119
Blue water snap fitting	1003120	1003120	1003120	1003120	1003120	1003120	1003120
Water bottle	1003121	1003121	1003121	1003121	1003121	1003121	1003121
Coolant	1003122	1003122	1003122	1003122	1003122	1003122	1003122

Parts list – 4x WIRE FEED UNIT

Description	Part number	pcs/machine
Feed system complete	FECX4002	1
Feed system insulator and mounting kit	1003123	1
Feed motor	FECX1018	1
Euro connector complete	1003000	1
Spool holder	1002002	1
Spool cover	1003124	1
Power cable connection	1003125	1
Power cable	1003126	1
RED Panel mount water snap fitting	1003127	1
BLUE Panel mount water snap fitting	1003128	1
Handle	1003129	1
Set or 4 feet	1003130	1
Castors	1003131	4
Door catch	1003132	1
Complete cabinet, door and side panel	1003133	1

Parts list – 4x4 Wire feed system wear parts / electro mechanical



Description	Part number	pcs/machine
Roller 0.6-0.8mm V groove for hard wire	FECV0608	2
Roller 0.8-1.0mm V groove for hard wire	FECV0810	2
Roller 1.0-1.2mm V groove for hard wire	FECV1012	2
Roller 1.2-1.6mm V groove for hard wire	FECV1216	2
Roller 1.0-1.2mm U groove for soft wire	FECU1012	2
Roller 1.2-1.6mm V groove for soft wire	FECU1216	2
Roller 1.0-1.6mm Knurled for flux cored	FECK1016	2
Roller 1.6-2.4mm Knurled for flux cored	FECK1624	2
A) Main drive gear for motor shaft	FECX1001	1
B) Pressure roller & gear complete	FECX1002	2
C) Idle gears for rollers F41G only	FECX1003	2
D) Axles for idle gears F41G only	FECX1004	2
E) Plastic roller retaining cap	FECX1005	2
F) Plastic inlet guide with liner	FECX1006	1
G) Main drive gear retaining screw F41G	FECX1007	1
H) Intermediate guide	FECX1008	1
I) Brass outlet guide tube (up to 1.6mm wire)	1003095	1
J) Pressure device	FECX1009	2
K) Pressure arm only right hand	FECX1013	1
L) Axle + circlip for pressure arm	FEXC1014	2
M) Pressure arm only left hand	FECX1015	1
N) Wire drive motor	FECX1018	1

Accessories

Description	CS 273 Part number	CS 333 Part number	CS 413 Part number	CS 513 Part number	CS 271 Part number	CS 331 Part number	CS 411 Part number
4x Wire feed unit	3003133	3003133	3003133	3003133	3003133	3003133	3003133
Swivel kit & castors	3003134	3003134	3003134	3003134	3003134	3003134	3003134
5m intercon. lead	3003135	3003135	3003136	3003137	3003135	3003135	3003136
10m intercon. Lead	3003138	3003138	3003139	3003140	3003138	3003138	3003139
15m intercon. Lead	3003141	3003141	3003142	3003143	3003141	3003141	3003142
20m intercon. Lead	3003144	3003144	3003145	3003146	3003144	3003144	3003145
5m watercooled intercon. lead	3003147	3003147	3003148	3003149	3003147	3003147	3003148
10m watercooled intercon. Lead	3003150	3003150	3003151	3003152	3003150	3003150	3003151
15m watercooled intercon. Lead	3003153	3003153	3003154	3003155	3003153	3003153	3003154
20m watercooled intercon. lead	3003156	3003156	3003157	3003158	3003156	3003156	3003157
WP26 4m tig torch	3003159	3003159	3003159	3003159	3003159	3003159	3003159
WP26 8m tig torch	3003160	3003160	3003160	3003160	3003160	3003160	3003160
WP26F 4m tig torch	3003161	3003161	3003161	3003161	3003161	3003161	3003161
WP26F 8m tig torch	3003162	3003162	3003162	3003162	3003162	3003162	3003162

Spare parts

All spare parts are readily available from your local welding distributor.

If overseas please contact the selling agent or contact us direct on

sales@oxfordwelders.co.uk

Manufactured in Great Britain by:

Oxford Welders / Technical Arc Ltd

York

YO19 5UP

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Tel: 01904 410041 (International 0044 1904 410041)

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