SGS360

SPOOL GUN SYSTEM

A professional ready to weld spool gun system,
Designed to fit any machine with a euro adaptor

Safety

Before using make sure all operators are familiar with the welding process and have had appropriate training relating to all the risks involved.
The Health and Safety Executive publish documents regarding this such as ISBN 0 7176 0704 6
(Electrical safety in arc welding), and many others.
When welding or cutting in an environment with increased risk of electric shock extra precautions must be observed. Typical conditions with increased risk of electric shock are working in wet or damp conditions, working inside vessels, working in cramped conditions and exposed to conductive parts, etc. DO NOT TAKE ANY RISKS
objects. This machine is designed for use indoors and must not be used in the rain or a wet environment.

STANDARD FEATURES ARE:

Very good welding performance on aluminum and stainless and mild steel.
Robustly constructed gun assembly for a long life. MB36 compatible consumables. Very flexible 8 or 15 meter sheathed cable assembly. Cables terminate inside gun with a clamp so no chance of any damaged plugs etc. Standard euro fitting on cable. Infinitely variable speed control on handle. System can be moved from machine to machine with ease. User friendly gun which is well balanced for minimum operator fatigue, spool position can be changed for the best access. No separate control box is necessary so easier to set up & move around. No separate power supply is needed gun runs on welding voltage only. User removable swan neck.

SGS360 TECHNICAL SPECIFICATIONS:6

Welding wire size,	0.8mm - 1.2mm
Spool size,	102mm x 45mm
Consumables,	SGS360 MB36 compatible (M8 tips)
Wire feed speed	3 - 20 meters per min
Welding voltage range	15-60V DC
Duty cycle	60% Max

Welding current rating (mixed gas) 270A @ 60%

INSTALLING AND USING THIS EQUIPMENT

The welding torch connects to the welding power source torch euro fitting, the wire feed on the welding machine should be disabled to stop wire being pushed into the spool on gun torch. The electronic module (part of the torch lead near the euro connector) has a single pole black socket fitted which needs a connection the welding earth (negative). This connection can be made using the 4mm plug or simply a wire under the screw. The wire can be attached directly to the work piece or welding clamp or directly onto the negative output socket on the power source, this can even be a unused inductance terminal etc.
A spool of wire can now be fitted to the torch; the end of the wire must be straight and must be guided through the tube and through the rollers, which are lifted by pressing down the red knob near the spool.
The rollers can be accessed by carefully removing the clear plastic cover with a screwdriver but this is not normally needed unless the rollers are to be changed.
The roller pressure is adjustable by a screw in a recess just in front of the red knob, this must be set up to give optimum wire feeding, (turn anticlockwise to increase pressure).
There is an adjustable break to stop over run of the wire spool and snags that normally follow, this break is adjusted by the screw in the center of the spool and should be set to give enough braking to stop the reel at the finish of a weld and not over run, do not set too tight. The position of the spool can be changed by loosening slightly the Allen head screw near the rollers, after turning to position re-tighten the screw gently.
Welding can now be carried out using the torch like a conventional MIG torch, the speed of the wire is set by the knob on the bottom of the torch, welding voltage is set on the welding power source as normal. Adjust the rollers pressure if necessary to make sure the feed is consistent and not slipping, do not increase pressure too much otherwise there will be unnecessary wear of drive parts etc.
The torch neck can easily be removed by the operator to assist with feeding problems etc always make sure the large nut which fixes the neck is tight.

FAULT FINDING

Fault pulling torch switch causes machine to energize briefly & then stop

1) Check control lead is plugged into work terminal (negative) & plugged into SGS360 spool gun box.
2) Possible welding power source fault check it welds with a standard MIG torch.

Fault pulling torch switch results in nothing happening.

1) Try pressing test button on SGS360 control box if that causes machine to energize hold in for 1 min, release & try pressing torch switch again.
2) Possible welding power source fault check it welds with a standard MIG torch.
3) Possible SGS360 fault contact your supplier

Parts list

Description	part no.	SGS360
FRONT END CONSUMABLES		
TIP ADAPTOR		SGS3614
GAS DIFFUSER		SGS3605W
CONICAL NOZZLE		SGS3616
TORCH NECK ASSY		SGS3601
TORCH NECK ASSY 30 degree bent		SGS360130
COMPLETE HANDLE ASSY		SGS1001
POTENTIOMETER		SGS1002
WIRE FEED MOTOR		SGS1003
SPOOL HOLDER/COVER COMPLETE		SGS1004
SPOOL COVER ONLY		SGS1005
TORCH TRIGGER		SGS1006
LINER FOR NECK		SGS1007
SET OF ROLLERS 0.8 mm ALI/STEEL		SGS1009
SET OF ROLLERS 1.0 mm ALI/STEEL		SGS1010
SET OF ROLLERS 1.2 mm ALI/STEEL		SGS1011
8 M CABLE ASSY ONLY		SGS1013
MOTOR GEARBOX ASSY COMPLETE		SGS1014
ELECTRONIC MODULE COMPLETE		SGS1015
PLASTIC ROLLERS COVER		SGS1016
PRESSURE ROLLER BUSH & SCREW		SGS1017
BRAKE RUBBER & NUT		SGS1018
SPOOL HOLDER SHAFT & RUBBER BRAKE ASSY		SGS1019
PCB (in control box) ONLY		SGS1020

MAINTENANCE

The operator should carry out daily checks of all cables and connections etc; any faults must be reported to a competent person and the machine taken out of service until repaired.
Keep this machine a clean dry environment.
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 the feed mechanism without switching machine to off or there is a risk of bodily crush damage in the wire feed.
The welding torch & wire feed roller mechanism needs to be checked & cleaned regularly to ensure best performance; the torch neck liner will need replacing after a few rolls of wire or every few months.
The wire feed roller should need be replaced each year for optimum feeding.
Contact your supplier for assistance with any faults.
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 be no less than every 12 months and sooner in harsh operating conditions.
If correctly maintained this machine should give a long trouble free life.