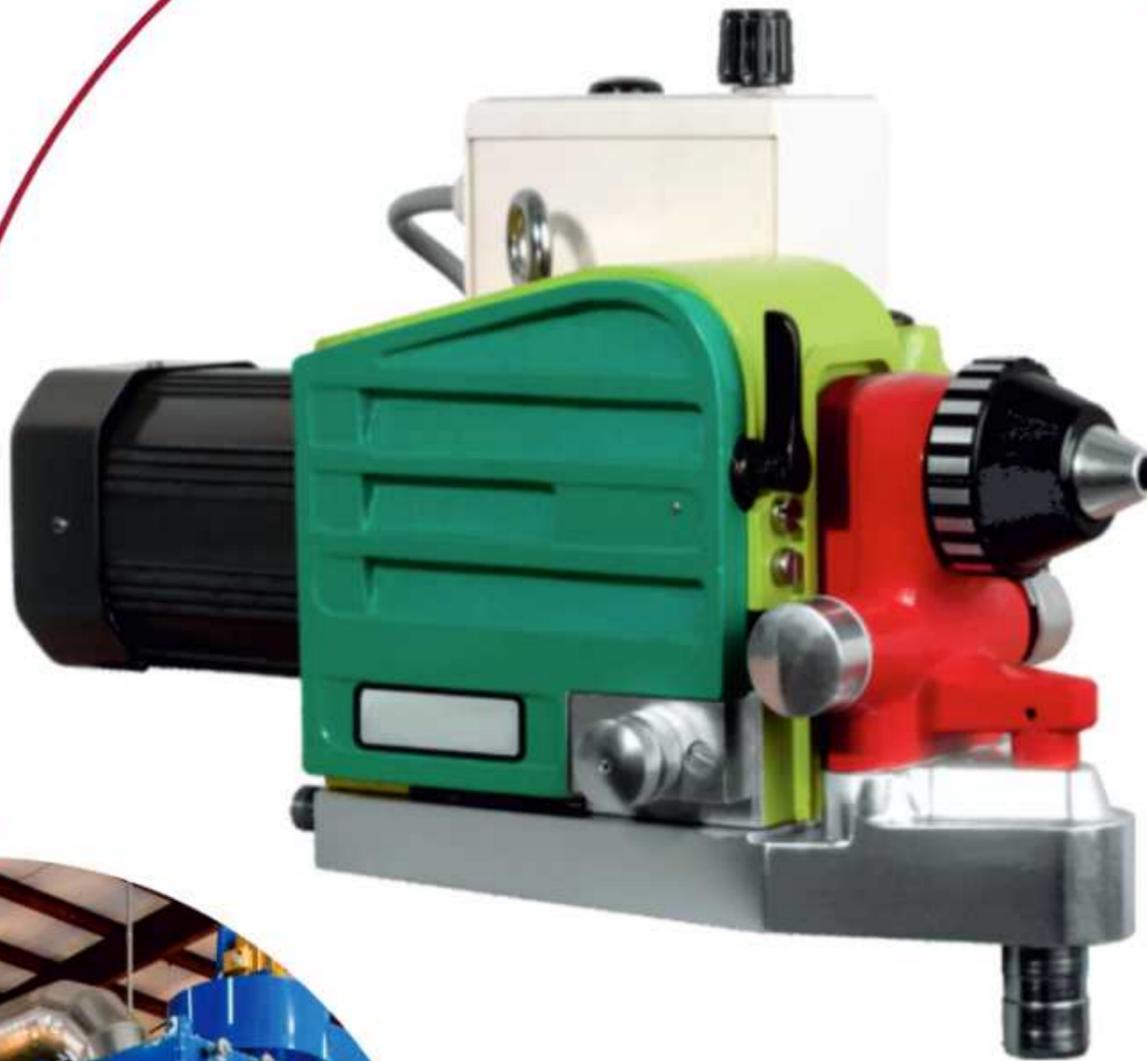


WIRE FLAME SPRAY GUN MODEL : S5K



The **Synco S5K** Combustion Wire Flame Spray Gun is designed for high volume production in an automated environment. It operates reliably & economically, with minimal downtime. This unit has an external Wire Feed Speed Panel that adjusts the rate of spray.

S5K Wire Flame Spray Torch

S5K Combustion Wire Flame Spray Gun : The S5K Combustion Wire Flame Spray Gun is engineered for high-volume, continuous metal spray in automated settings. It operates efficiently and reliably, requiring minimal downtime, and features an external Wire Feed Speed Panel for precise spray control.

This rugged, heavy-duty spray gun is ideal for industrial-scale wire flame spray applications, offering consistent coating performance across long production cycles. Designed for flexibility, it accommodates a wide range of wire materials and diameters.

KEY FEATURES & ADVANTAGES

-  **Heavy Duty Construction :** Built for continuous operation in demanding industrial environments.
-  **Automated Performance :** Optimized for integration into automated production lines.
-  **Versatile Wire Compatibility :** Suitable for wires ranging from 0.813 mm (20 gauge) to 4.76 mm (3/16 inch) in diameter.
-  **Universal Gas Head :** Factory-configured for acetylene, but adaptable to other fuel gases like natural gas / CNG with optional components.
-  **Sealed Housing :** Prevents contamination from dust, oil, and debris.
-  **Efficient Wire Feed Mechanism :** Powered by a robust motor and gearbox, ensuring consistent, smooth wire feed.

SPRAY CAPABILITIES

- Sprays soft, low-melting-point wires like Zinc, Aluminium or Babbitt - Also handles harder materials like Stainless Steel or Molybdenum - Quick-change parts support multiple wire diameters - Two gear sets offer standard and high spray rates.

APPLICATION AREAS

- Tube Mill Lines : Achieves high deposition efficiency - High-Volume Coating Jobs: Bearings, Piston Rings, Shifter Forks, Synchro Rings - Corrosion-Resistant & Wear-Resistant Coatings.

EXTENSION ATTACHMENTS

- Available in 6-inch and 1-foot lengths. These allow access to hard-to-reach surfaces and internal diameters (minimum 8 inches) by simply replacing the air cap and siphon plug – a tool-free process that takes only a couple of minutes.

TECHNICAL SPECIFICATIONS

- Weight: Approx. 10.85 kg (without hoses and cables) Wire Diameter Range: 0.813 mm to 4.76 mm (20 gauge to 3/16 in) Compressed Air Requirement: 0.6 m³/min at 3.4–4.5 bar (20 ft³/min at 50–65 psi) Fuel Gases Supported: Oxygen, Acetylene, Natural Gas / CNG Extensions Available : 6-inch and 1-foot attachments.

INSTALLATION LAYOUT

- Wire Control Unit - Wire Feed Speed Panel - Compressed Air Supply - Oxygen & Fuel Gas Supply (via 3GFM Gas Flow Meter) - Air Flow Meter (Model: 3AFM) - Gas Control Unit with dual pressure gauges - Air Control Unit for secondary regulation.

OPTIONAL ACCESSORIES GAS & AIR CONTROL UNITS

- Regulate and display both cylinder and delivery pressures. - Compatible with Oxygen, LPG, CNG and Acetylene.

HOSE KIT

- Oxygen: 3+7 meters (Blue) - Fuel Gas: 3+7 meters (Red) - Air: 7 meters (Black).

WIRE REEL STAND WITH STRAIGHTENER

- For feeding reeled, spooled, or loose wires. - Includes integrated wire straightener.

FLOW METERS

- 3SGFM Gas Flow Meter: Dual scale in NLPM (Normal Liters per Minute) & SCFM (Standard Cubic Feet per Minute).

METAL SPRAY WIRES AVAILABLE WIRES INCLUDE

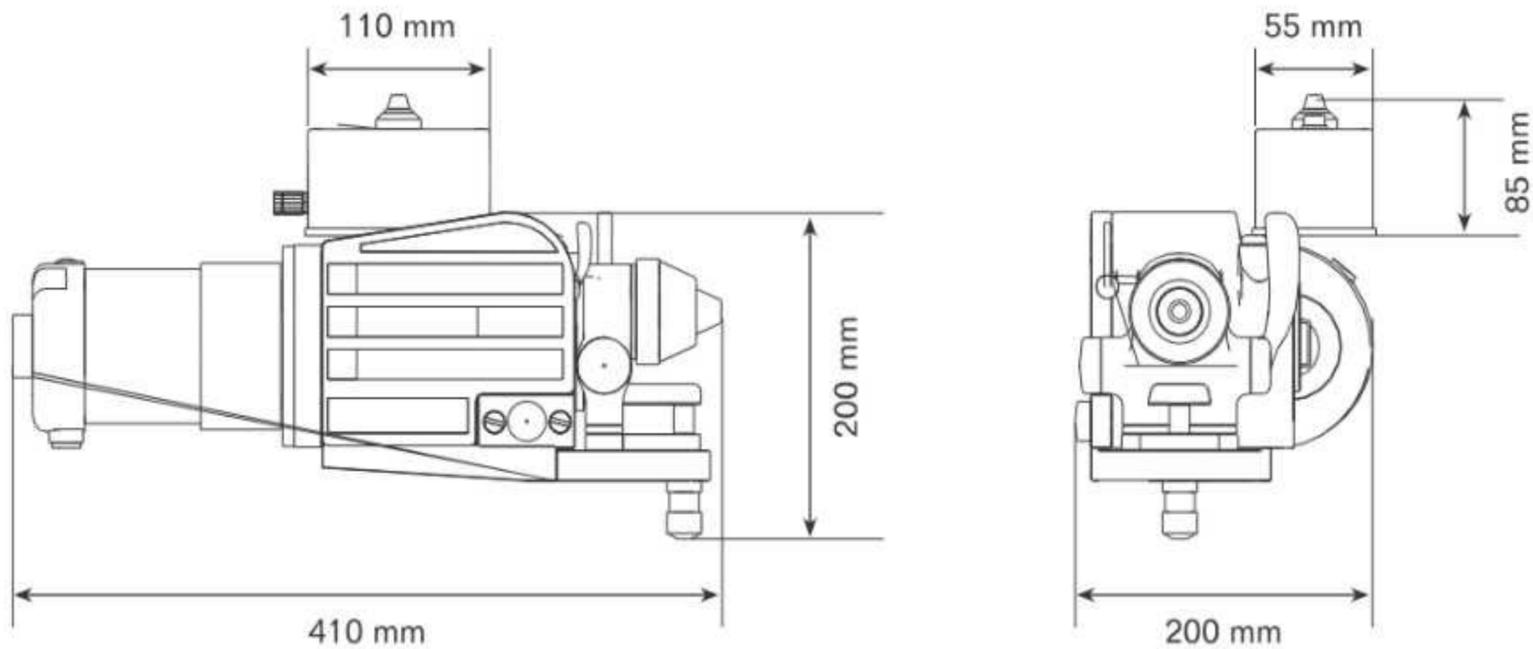
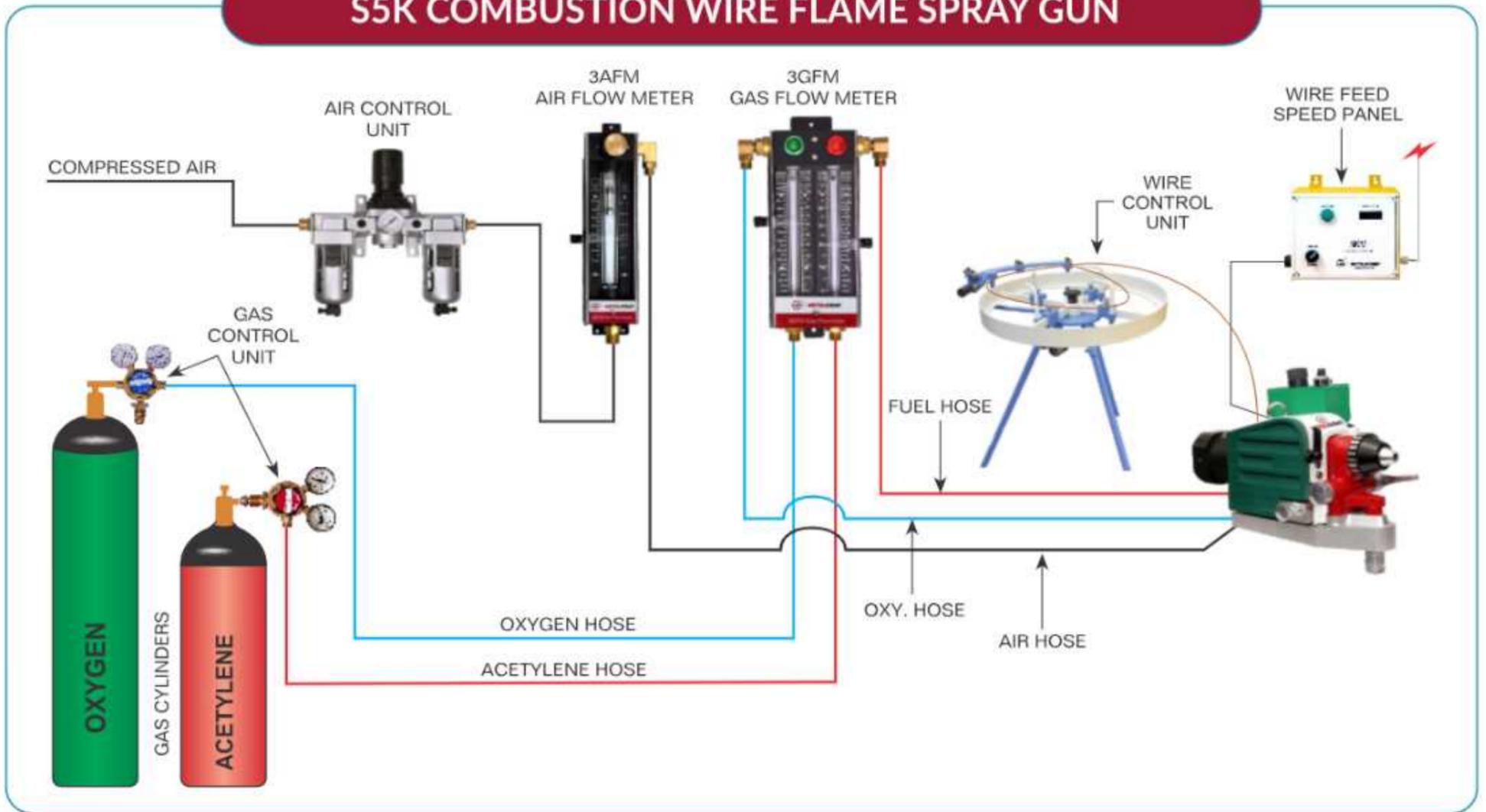
- Zinc, Aluminum, Nickel, Copper - Bronze, Babbitt, Stainless Steel - Monel, Molybdenum, Brass, and various composite wires.

CONTACT YOUR SUPPLIER FOR REAL-TIME STOCK AND AVAILABILITY

- Safety Equipment - Operator Safety Mask: For clean breathing air - Metallizing Helmet with Air Conditioner & Breather - Hand Gloves: Anti-static and protective - Protective Glasses and Ear Muffs for personnel near the spray zone.

Additional Equipment & Products • Other Wire Flame Spray Guns: S11M, S12M, S14M - Powder Flame Spray Guns: S5PM-II, S6PM-II - Spray & Fuse Gun: SMST-100 - HVOF Control Console - Powder Turntables, Feeders, and Spray Booths - Arc Spray Guns.

S5K COMBUSTION WIRE FLAME SPRAY GUN



Specifications

Coating Wire Sizes	0.813 to 4.76 mm	20 gauge to 3/16 inch
Weight approximate without hose and cables	10.850 Kg.	
Fuel gas Oxygen	Acetylene, natural gas (methane) & CNG	
Compressed air (dry & oil free)	0.6 m ³ /min at 3.4 to 4.5 bar	20 ft ³ /min at 50 to 65 psi
Available Extensions	6 inch & 1 foot long	

OPTINOAL ACCESSORIES

Gas Control Unit

Gas regulator with pressure gauge. Unit consist of:

- (a) Gas regulator
- (b) Two Pressure Gauges (Cylinder Pressure & Delivery Pressure)

Pressure Rating:	Oxygen	: 10 Bar
	LPG/Propane	: 06 Bar
	Acetylene	: 2.5 Bar



Air Control Unit

Consist of filter and regulator to regulate air flow.

Pressure Rating: 10 Bar



Hose Kit (For Interconnecting Flame Gun to Gas Source, O2 Source & Flow Meter)

Consist of Hose to connect oxygen cylinder & fuel gas cylinder with gas flow meter to spray gun. Flame gun to Gas Source, O₂ Source & Flow Meter.

Oxygen Hose - Blue	: 10 Mtrs (3+7 Mtrs.)
Fuel Gas Hose - Red	: 10 Mtrs (3+7 Mtrs.)
Air Hose - Black	: 7 Mtrs.



Gas Flow Meter (3SFM)

Model : 3SGMF (Gas Flow Meter) Flow Measurement in both SCFM & NLPM



Gas Flow Meter (2SFM)

Scale (0 to 100) synco recommends use of 3S FM or 2S FM to be used with synco wire flame spray gun. It has two separate flow tubes to accurately measure flow of both oxygen & fuel gas supply.



Extension Nozzles

Extension nozzles can be supplied for ID coatings & can be installed in existing gun by removing air cap body, siphon plug & replacing it with extension nozzle. It can be used with both LPG and Acetylene.



Wire Control Unit

Synco Can Supply : Spool Stand, Wire Straightener for smooth flow of wire to gun. Trolley wire reel stand is also available.

Metal Spray Wire

All the thermal spray wires such as Aluminium, Aluminium Alloy, Tin, Tin Alloy, Nickel, Nickel Alloy, Zinc, Stainless Steel, Brass, Molybdenum, Monel, Copper & many more. Please contact us to know the availability.



SAFETY WEARS

Metallizing Helmet

Light weight & comfortable with excellent vision. Supplied with a separate air supply unit which consisting of Helmet Air Conditioner & Air Breather.



Air Breather

This is installed in between compressed air line originating from fitting to the operators helmets. Activated charcoal is contained in the breather unit which separates the oil traces from the compressed air and clean compressed air is fed to the operator's helmet.



Helmet Air Conditioner

Air from the air breather is fed to the helmet air conditioner and air is conditioned before it is fed to the helmet for breathing. It has also a regulator knob so that the operator can regulate the temperature of air fed to the helmet. It is self driven and doesn't need external power.



Ear Muff

Light weight & comfortable. Operator & other personnel close to the spray operation must wear. Protect the operator from noise originating during thermal spray.



Protective Glass

Light weight & comfortable with excellent vision. Operator & other personnel close to the spray operation must wear.



Operator Safety Mask

ensure clean breathing air at all time. Conforms to current legislation on breathing air quality.



Hand Gloves

These are made of rubber and have anti-static properties, Hand gloves protect the operator's hand against flying abrasive and static charge if any.



S5K-PART LIST

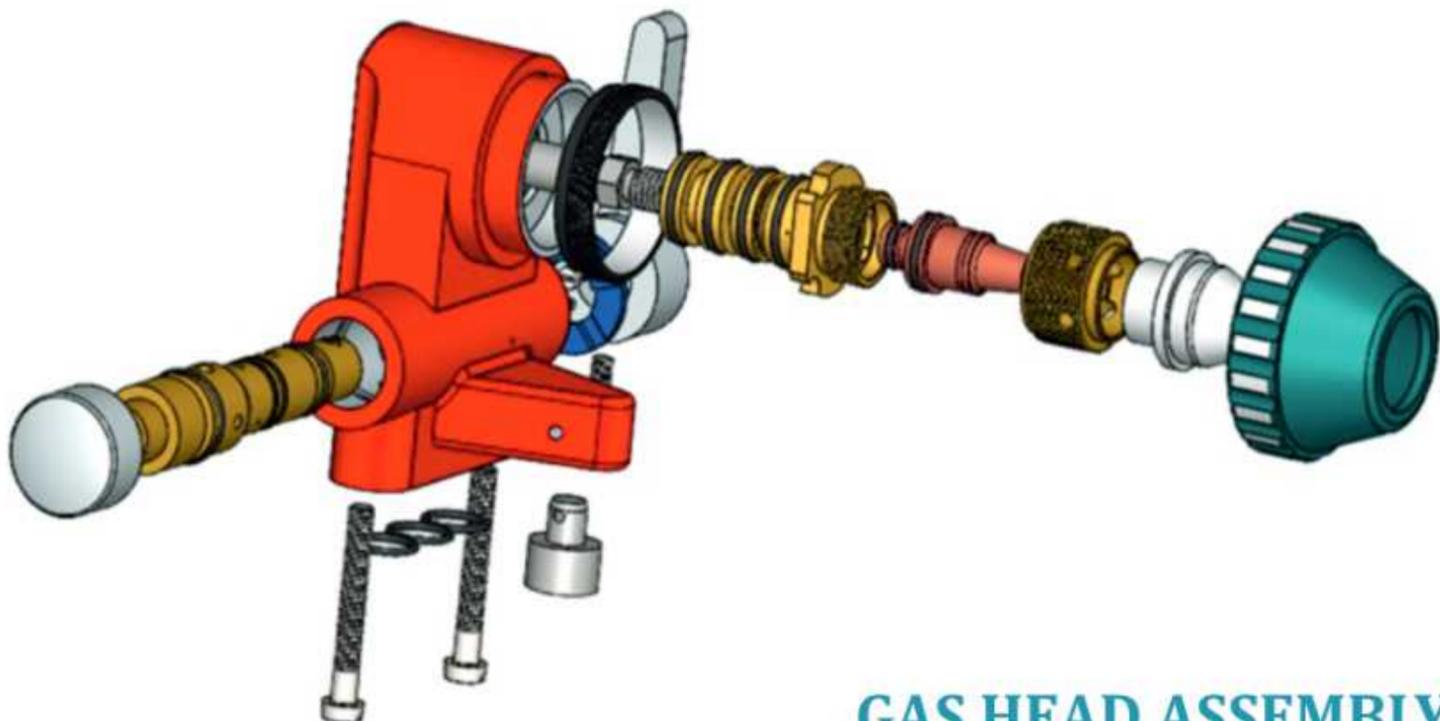
S. No.	Part No.	Name of The Part	Picture of The Part	S. No.	Part No.	Name of The Part	Picture of The Part
1	20	Gas Head		14	27	SPRING DETENT PIN	
2	20 A	GAS HEAD 'O' RING (2 of same type)		15	28	PLUNGER OXYGEN AND FUEL GAS	
3	20 B	GAS HEAD 'O' RING (1No.)		16	29	'O' RING PLUNGER OXYGEN AND FUEL	
4	20 C	GAS HEAD DOVEL PIN		17	30	SEAL 'O' RING PLUNGER OXYGEN AND FUEL	
5	20 D	SMALL PIN (Lock Pin)		18	31	PLUNGER AIR	
6	20 E	SPRING 34		19	32	'O' RING PLUNGER AIR	
7	21	VALVE CORE		20	33	SEAL 'O' RING PLUNGER OXYGEN AND FUEL	
8	21 A	VALVE CORE CAP		21	34	PLUNGER SPRING 20 E	
9	22	VALVE CORE 'O' RING (BIG)		22	36	ALUMINUM CAP SIPHON PLUG	
10	23	VALVE CORE 'O' RING (SMALL 3 No.)		23	37	SIPHON PLUG	
11	24	VALVE HANDLE		24	38	SIPHON PLUG ASSEMBLY (INCLUDES PART NO. 37, 40,41,42,44,45,46)	
12	25	SCREW VALVE HANDLE		25	40	O' RING FOR SIPHON PLUG	
13	26	DETENT PIN		26	41	NOZZLE 'O' RING SMALL	

S5K-PART LIST

S. No.	Part No.	Name of The Part	Picture of The Part	S. No.	Part No.	Name of The Part	Picture of The Part
27	42	NOZZLE 'O' RING BIG		40	62	MOTOR SHAFT GEAR 143	
28	43	CAP FOR GAS HEAD		41	67	MOTOR SHAFT GEAR HIGH SPEED (OPTION)	
29	44	BRESS NUT FOR SIPHON PLUG		42	76 A 76 B	DRIVE SHAFT WORM GEAR (76A - STANDARD) (76B – LOW SPEED OPTIONAL)	
30	45 45 C	ACETYLENE 11 GA. (OPTIONAL) PART NO. 45		43	77	SET SCREW FOR WORM GEAR	
31	45 A	O' RING		44	78	RIGHT DIRVE SHAFT BEARING	
32	45 B	O' RING		45	79	DRIVE SHAFT	
33	45 C	NOZZLE INSERT		46	80	DRIVE SHAFT INSERTING PIN	
34	46	SIPHON PLUG BACK PART (WIRE GUIDE)		47	81 A 81 B	COUNTER SHAFT GEAR (81 A-STANDARD) HIGH SPEED (81 B-OPTIONAL)	
35	50	MOTOR ASSEMBLY		48	82	COUNTER SHAFT GEAR SCREW SET	
36	50 B	MOTOR TOP AL BOX		49	83	REAR COUNTER SHAFT BEARING	
37	51	MOTOR OIL SEAL		50	84 A 84 B	COUNTER SHAFT (84 A -STANDARD) (84 B -LOW SPEED)	
38	52	OIL SEAL 'O' RING		51	85	COUNTER SHAFT FRONT BEARING RETAINER	
39	60	MOTOR FLANGE GASKET		52	86	COUNTER SHAFT BEARING NUT	

S5K-PART LIST

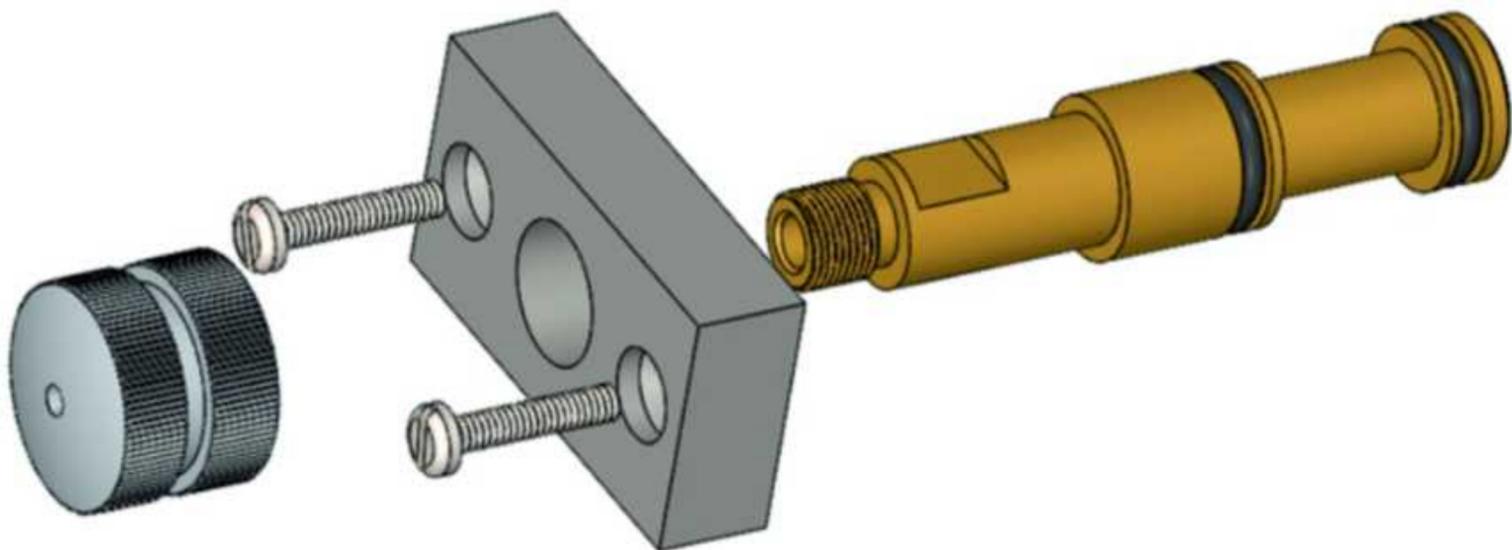
S. No.	Part No.	Name of The Part	Picture of The Part	S. No.	Part No.	Name of The Part	Picture of The Part
53	87	FRONT COUNTER SHAFT BEARING		61	116 B	PISTON CAP	
54	88	DRIVE SHAFT SEAL		62	116 C	PISTON	
55	89	MOUNTING SCREW WIRE DIVE UNIT		63	116 D	PISTON NUT	
56	110	ALUMINUM NUT FOR PISTON ASSY		64	116 E	'O' RING FOR PISTON	
57	111	PISTON ASSY BRESS		65	116 F	'O' RING FOR PISTON	
58	113	SPRING FOR PISTON		66	117	'O' RING FOR PISTON	
59	116	PISTON ASSEMBLY		67	120	UPPER DRIVE ROLL CARRIER (SET OF TWO) ALUMINUM CASTING	
60	116 A	PISTON BODY		68	121	UPPER DRIVE ROLL CARRIER NUT	



GAS HEAD ASSEMBLY

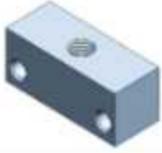
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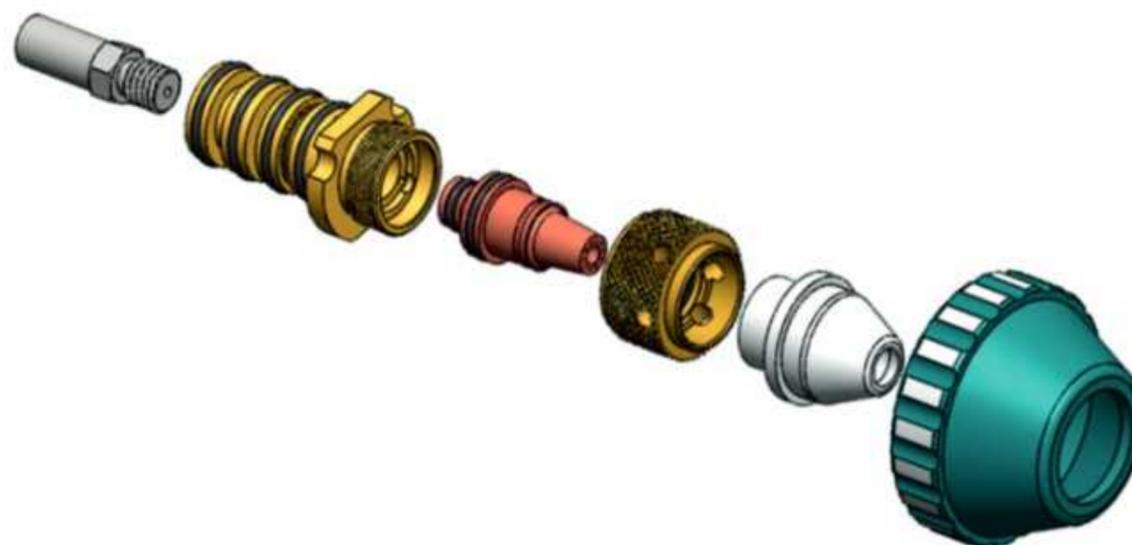
S. No.	Part No.	Name of The Part	Picture of The Part	S. No.	Part No.	Name of The Part	Picture of The Part
69	122	DRIVE ROLL AXLE		77	130	REAR WIRE GUIDE SET SCREW	
70	123	AXLE SET SCREW		78	131	VALVE STEM	
71	124 A 124 B	UPPER DRIVE ROLL (124A – 3/16" -1/8" STANDARD) (124B – SMALL GAUGE)		79	132	VALVE STEM 'O' RING	
72	125	UPPER DRIVE GEAR		80	133	STOP PLATE	
73	126	SCREW FOR DRIVE ROLL		81	134	STOP PLATE SCREW	
74	127 A 127 B	LOWER DRIVE ROLL (127A – 3/16" -1/8" STANDARD) (127B – SMALL GAUGE)		82	135	VALVE STEM KNOB	
75	128	LOWER DRIVE GEAR		83	136	PISTION SEAL	
76	129 A 129 B	REAR WIRE GUIDE (129A-STANDARD) (127B-SMALL GAUGE)		84	137	PISTON SEAL RETAINER	



VALVE STEM ASSEMBLY

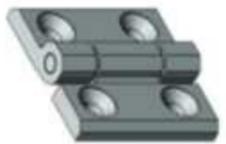
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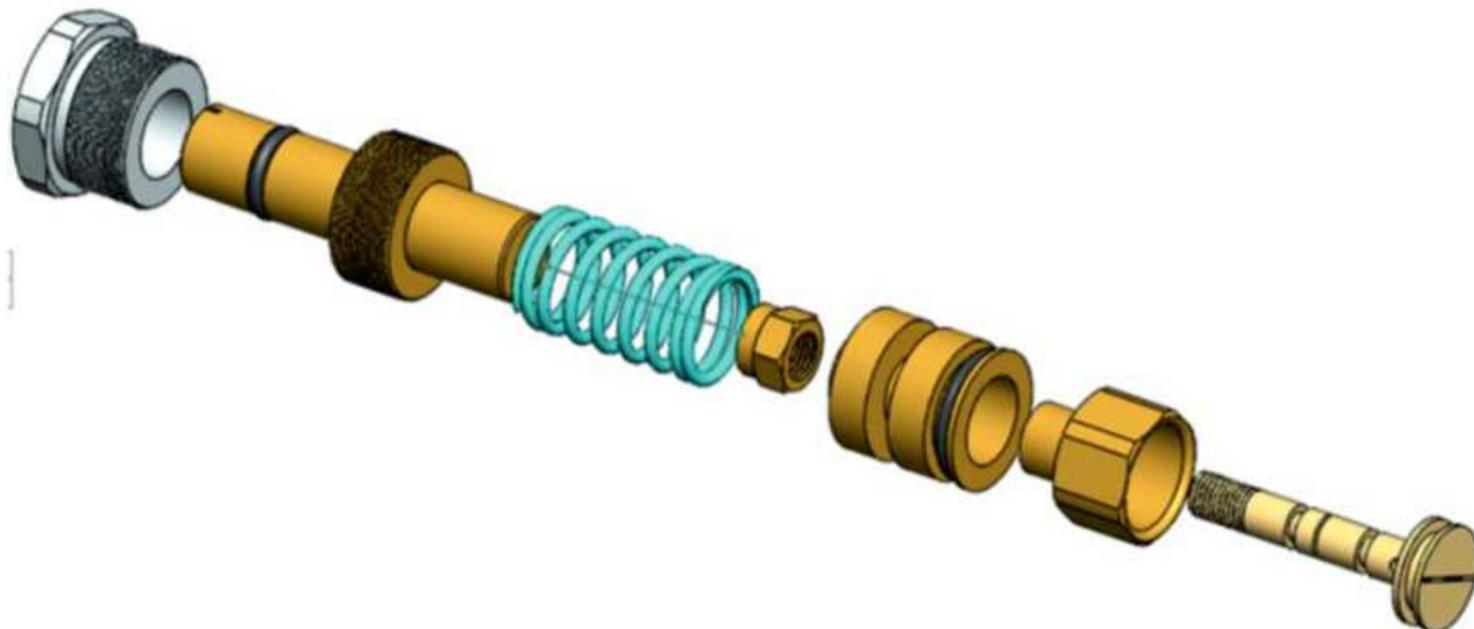
S. No.	Part No.	Name of The Part	Picture of The Part	S. No.	Part No.	Name of The Part	Picture of The Part
85	138	RETAINER SCREW		93	145	GREASE CAP FOR BODY	
86	139	ADJUSTING SCREW BLOCK		94	146	PIN of BODY BLOCK	
87	140	SCREW		95	147	ROUND ALUMINUM DISC OF BODY WITH BEARING	
88	141	DRIVE ROLL TRAVEL ADJUSTING SCREW		96	147 A	ROUND DISC BEARING	
89	142	FIBRE GEAR		97	148	BLACK SQUARE BODY FOR MAIN BODY	
90	143	WORM GEAR FOR MOTOR		98	148 A	OIL SEAL	
91	144	BODY BLOCK FOR 5K		99	149	MASTER PLATE WITH GAS HEAD ASSY AND CONNECTORS	
92	144 A	BRASS BUSH		100	149 A	CONNECTORS	



SIPHON PLUG ASSEMBLY

S5K-PART LIST

S. No.	Part No.	Name of The Part	Picture of The Part	S. No.	Part No.	Name of The Part	Picture of The Part
101	149 B	CONNECTORS		109	152	EYE HOOK	
102	149 C	CONNECTORS		110	153	MOTOR FLANGE	
103	149 D	GUN HOLDING PIN		111	154	CAP FOR FILLING OIL	
104	149 E	CONNECTOR HOLD PIN		112	154 A	O RING FOR ABOVE CAP	
105	149 F	O RING-3					
106	150	LOCK PLATE					
107	150 A	HINGES LOCK PLATE					
108	151	SPANNER FOR PART NO. 127					



WIRE GRIP CONTROL PARTS



SYNCO RANGE :

- Air/Airless Grit/Shot Blasting and Peening Machines. (Blast Rooms and specialized Models)
- Electric Arc Spray System.
- Blasting Nozzles (Boron Carbide and Tungsten Carbide)
- Deflashing Machines.
- Blasting Media : Glass Beads, Aluminium Oxides. (Virgin/Commercial/White)
- C I Grit/ Shots, Steel Grit/ Shots, Plastic Grits, Copper Slag, Coconut Shell Grits, MS High Carbon Steel Stainless Steel/Zinc/ Aluminium/Copper Cut Wire Shots from 0.4mm to 2.5mm both as cut and conditioned
- Nylon & Cryogenic Media.

SYNCO RANGE :

- Portable and Blasting Cabinet Type Pressure, Suction, Vacuum, Wet Blasting Machines.
- Integrated Shot Blasting Rooms With Object & Media Recycling & Dust Collection Arrangements.
- Paint Booth, Baking Ovens, Acoustic Rooms, Metal Spray Rooms.
- Deflashing Machines For Thermoset Parts.
- Cryogenic Deflashing Machines For Rubber Parts.
- All Kinds of Spares Standard And Custom Built.

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