



WORLDWIDE



**THE STANDARD
IN TIG WELDING**

TORCH MANUAL

for CK17, CK18, CK26
3 Series Standard



FORM TM-3 APRIL 2019

Toll Free: (800) 426.0877

www.CKWORLDWIDE.com

Congratulations on your purchase of a CK Worldwide TIG Torch!

CK Worldwide's premium quality TIG torches perform with a reliability and efficiency you can always depend on. CK equipment and technical support is available online at www.CKWORLDWIDE.com or by calling (800) 426-0877 between 7:00AM and 3:30PM, Monday through Friday.



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Need technical information? Call or email to request a copy of our Technical Guide (Form 116)

WARRANTY: CK Worldwide, Inc. warrants products manufactured by CK Worldwide, Inc. to be free of defects in materials and workmanship. CK Worldwide, Inc. limits this warranty to replacement of the product or parts thereof and excludes liability for injury, property damage or economic loss attributable to product use or misuse. In any event, CK Worldwide, Inc. will only be responsible for its products when used with accessory items manufactured by CK Worldwide, Inc.

The information in this manual represents the best judgement of CK Worldwide, Inc. and is intended for use by experienced personnel. Never operate any equipment without carefully reading, understanding, and following all of the related safety rules and practices. CK Worldwide makes no claims, expressed or implied, as to the viability of this information for any application or use. The individual user is solely responsible for any and all uses of the information contained herein, since CK Worldwide has no means to confirm the correct use of, or control any of the variables to the use of any and all information herein.

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IN THIS MANUAL you will find technical and ordering information for CK17, CK18 and CK26 TIG torches, hoses, and accessories.

TORCH SPECIFICATIONS

CK17



CK26



CK18

MAX-FLO™
Improved Cooling Capacity



**Fail Safe™
Hose Connections**



INSTALLATION: Before using this torch, tighten regulator, hose and power cable fittings with proper wrenches. Using small pliers, securely tighten all knurled hose fittings (Slide the torch handle back for access to the torch connections). Purge the regulator and TIG torch with inert gas at 20 cubic feet per hour. Following these steps will ensure contamination free welds. Repeat this procedure whenever torch or regulator fittings have been detached.

CALIFORNIA PROPOSITION 65

WARNING: This product contains or produces a chemical known to the state of California to cause cancer and birth defects or other reproductive harm) (California Health and Safety Code Section 25249.5 et seq.)

WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer (California Health and Safety Code Section 25249.5 et seq.)

INFORMATION SOURCES

California Health and Safety Code, Section 25249.4 through 25249.13. The California Office of Environmental Health Hazard Assessment, 301 Capitol Mall, Sacramento, CA 95814; Telephone 916-445-6900.
California Proposition 65 Website: www.oehha.ca.gov/prop65.html.
American National Standards Institute (ANSI). Product Safety Signs And Labels (ANSI Z535.4), available from ANSI, 25 West 43rd Street, New York, NY 10036; Telephone 212-642-4900; Website www.ansi.org.

SAFETY INFORMATION

Welding and cutting equipment can be dangerous to both the operator and people in or near the surrounding working area, if the equipment is not correctly operated. Equipment must only be used under the strict and comprehensive observance of all relevant safety regulations. Read and understand this instruction manual carefully before the installation and operation of this equipment.



ELECTRIC SHOCK:
It can kill



FUMES AND GASES ARE DANGEROUS



ARC RAYS: Harmful to people's eyes and skin



ELECTRIC SHOCK: It can kill. Touching live electrical parts can cause fatal shocks or severe burns. The electrode and work circuit is electrically live whenever the output is on. The input power circuit and internal machine circuits are also live when power is on. Incorrectly installed or improperly grounded equipment is dangerous.

- Connect the primary input cable according to American standards and regulations. ANSI Z49.1.
- Avoid all contact with live electrical parts of the welding circuit, electrodes and wires with bare hands. The operator must wear dry welding gloves while he/she performs the welding task.
- The operator should keep the work piece insulated from himself/herself.
- Keep cords dry, free of oil and grease, and protected from hot metal and sparks.
- Frequently inspect input power cable for wear and tear, replace the cable immediately if damaged, bare wiring is dangerous and can kill.
- Do not use damaged, under-sized, or badly joined cables.
- Do not drape cables over your body.

FUMES AND GASES ARE DANGEROUS: Smoke and gas generated while welding or cutting can be harmful to people's health. Welding produces fumes and gases. Breathing these fumes and gases can be hazardous to your health.

- Do not breathe the smoke and gas generated while welding or cutting, keep your head out of the fumes.
- Keep the working area well ventilated, use fume extraction or ventilation to remove welding fumes and gases.
- In confined or heavy fume environments always wear an approved air-supplied respirator. Welding fumes and gases can displace air and lower the oxygen level causing injury or death. Be certain the air in your work environment is safe to breathe.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Materials such as galvanized, lead, or cadmium plated steel, contain elements that can give off toxic fumes when welded. Do not weld these materials unless the area is very well ventilated, and or wearing an air supplied respirator.

ARC RAYS: Harmful to people's eyes and skin. Arc rays from the welding process produce intense visible and invisible ultraviolet and infrared rays that can burn eyes and skin.

- Always wear a welding helmet with correct shade of filter lens and suitable protective clothing including welding gloves while the welding operation is performed.
- Measures should be taken to protect people in or near the surrounding working area. Use protective screens or barriers to protect others from flash, glare and sparks; warn others not to watch the arc.

HOT PARTS: Items being welded generate and hold high heat and can cause severe burns. Do not touch hot parts with bare hands. Allow a cooling period before working on the welding gun. Use insulated welding gloves and clothing to handle hot parts and prevent burns.

FIRE HAZARD: Welding on closed containers, such as tanks, drums, or pipes, can cause them to explode. Flying sparks from the welding arc, hot work piece, and hot equipment can cause fires and burns. Accidental contact of electrode to metal objects can cause sparks, explosion, overheating, or fire. Check and be sure the area is safe before doing any welding.

- Welding sparks may cause fire, therefore remove any flammable materials away from the working area, at least 40 feet (12m) from the welding arc. Cover flammable materials and containers with approved covers if unable to be moved from the welding area.
- Do not weld on closed containers such as tanks, drums, or pipes, unless they are properly prepared according to the required Safety Standards to insure that flammable or toxic vapors and substances are totally removed, these can cause an explosion even though the vessel has been “cleaned.” Vent hollow castings or containers before heating, cutting or welding. They may explode.
- Do not weld where the atmosphere may contain flammable dust, gas, or liquid vapors such as gasoline.
- Have a fire extinguisher nearby and know how to use it. Be alert that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Be aware that welding on a ceiling, floor, bulkhead, or partition can cause fire on the hidden side.

GAS CYLINDERS: Shielding gas cylinders contain gas under high pressure. If damaged, a cylinder can explode. Because gas cylinders are normally part of the welding process, be sure to treat them carefully. **CYLINDERS** can explode if damaged.

- Protect gas cylinders from excessive heat, mechanical shocks, physical damage, slag, open flames, sparks, and arcs.
- Insure cylinders are held secure and upright to prevent tipping or falling over.
- Never allow the welding electrode or earth clamp to touch the gas cylinder, do not drape welding cables over the cylinder.
- Never weld on a pressurized gas cylinder, it will explode and kill you.
- Open the cylinder valve slowly and turn your face away from the cylinder outlet valve and gas regulator.

GAS BUILD UP: The build up of gas can cause a toxic environment by depleting the air’s oxygen content and potentially resulting in injury or death.

- Shut off shielding gas supply when not in use.
- Always ventilate confined spaces or use approved air-supplied respirator.

ELECTRONIC MAGNETIC FIELDS: **MAGNETIC FIELDS** can affect implanted medical devices.

- Wearers of pacemakers and other implanted medical devices should keep away.
- Implanted medical device wearers should consult their doctor and the device manufacturer before going near any electric welding, cutting or heating operation.

NOISE CAN DAMAGE HEARING: Noise from some processes or equipment can damage hearing. Wear approved ear protection if noise level is high.



FIRE HAZARD



GAS CYLINDERS
Shielding gas cylinders contain gas under high pressure. If damaged, a cylinder can explode



GAS BUILD UP



ELECTRONIC MAGNETIC FIELDS can affect implanted medical devices



NOISE CAN DAMAGE HEARING

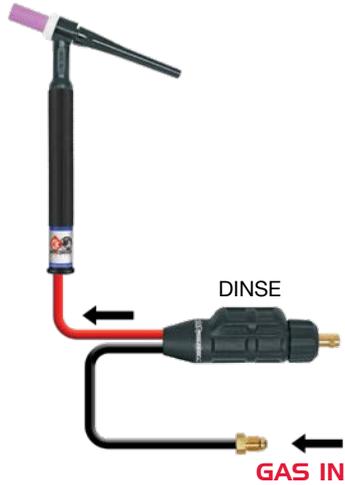
CONNECTION DIAGRAMS

GAS-COOLED

2 PIECE



1 PIECE

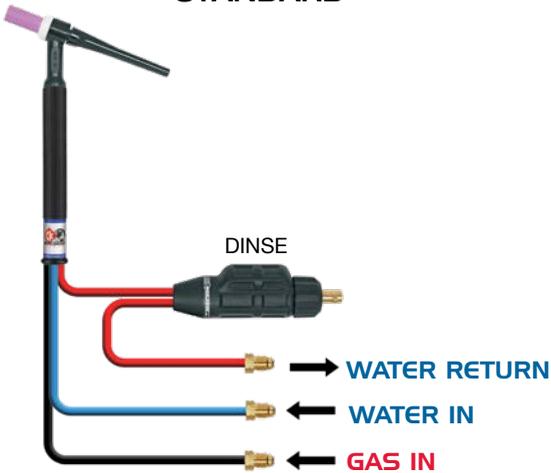


1 PIECE GAS-THRU

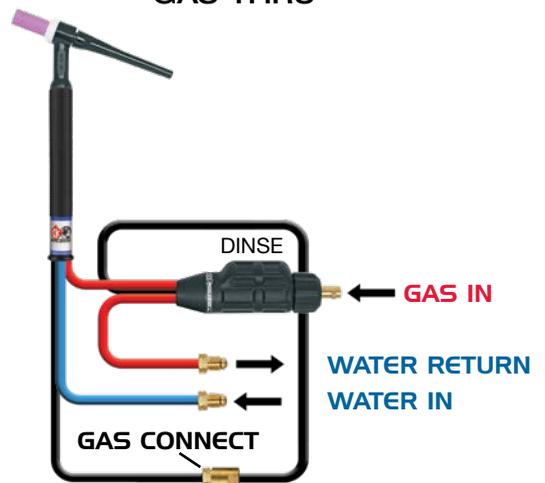


WATER-COOLED

STANDARD

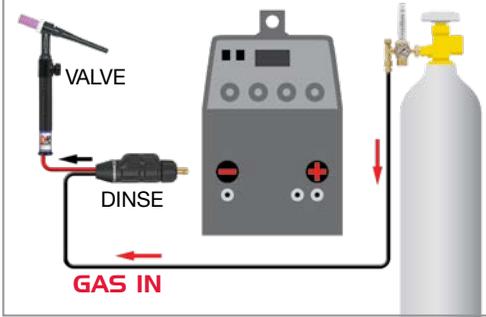


GAS-THRU

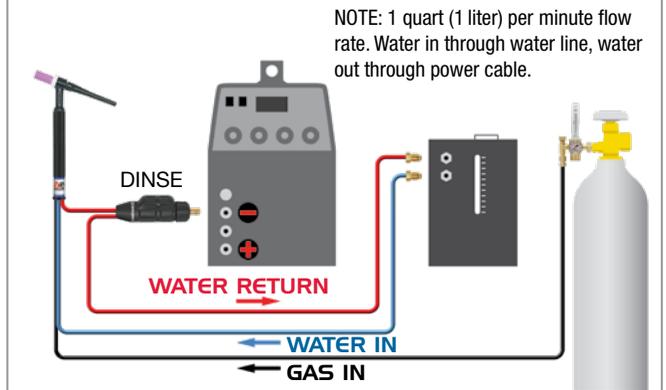


MACHINE CONNECTION DIAGRAMS

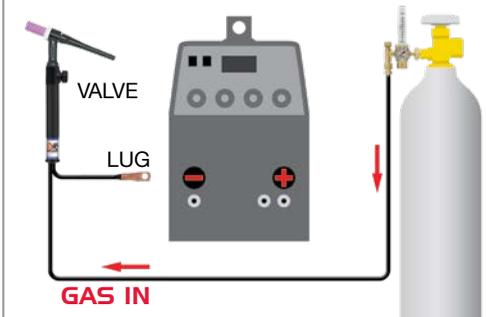
1 PIECE GAS-COOLED



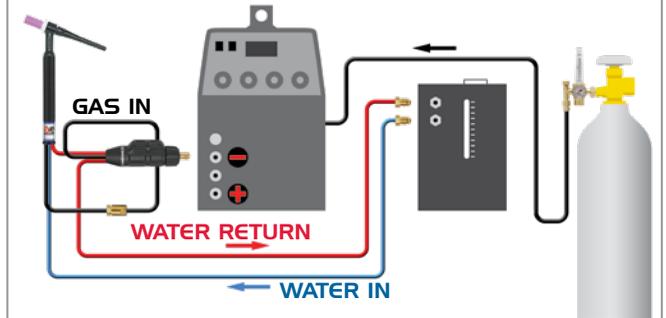
WATER-COOLED



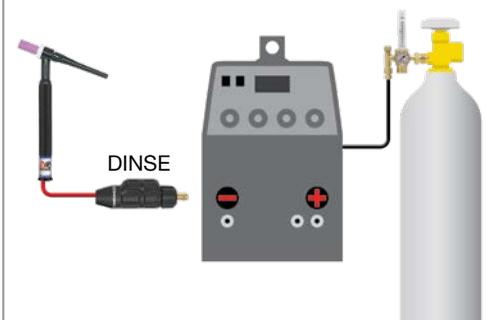
2 PIECE GAS-COOLED



WATER-COOLED GAS-THRU



1 PIECE GAS-THRU



QUICK DISCONNECTS

Adapters for gas-cooled and water-cooled torch setups that have quick-disconnect female adapters on either the machine or water-cooler.

QDWAP

WATER COOLED

9mm male quick disconnect for water.



QDGAP

GAS COOLED

9mm male quick disconnect for argon.



CK17 & CK17V | RIGID

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	CK17-12-R RG	CK17-12-RSF RG	8-1/8" (20.6cm)
		25 ft. (7.6m)	CK17-25-R RG	CK17-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	CK17-12-2 RG	CK17-12-2SF RG	5 oz (141gm)
		25 ft. (7.6m)	CK17-25-2 RG	CK17-25-2SF RG	
RIGID + VALVE	1 Piece	12.5 ft. (3.8m)	CK17V-12-R RG	CK17V-12-RSF RG	
		25 ft. (7.6m)	CK17V-25-R RG	CK17V-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	CK17V-12-2 RG	CK17V-12-2SF RG	
		25 ft. (7.6m)	CK17V-25-2 RG	CK17V-25-2SF RG	

CK17 & CK17V | FLEX

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
FLEX	1 Piece	12.5 ft. (3.8m)	CK17-12-R FX	CK17-12-RSF FX	8-3/4" (22.2cm)
		25 ft. (7.6m)	CK17-25-R FX	CK17-25-RSF FX	
	2 Piece	12.5 ft. (3.8m)	CK17-12-2 FX	CK17-12-2SF FX	5 oz (141gm)
		25 ft. (7.6m)	CK17-25-2 FX	CK17-25-2SF FX	
FLEX + VALVE	1 Piece	12.5 ft. (3.8m)	CK17V-12-R FX	CK17V-12-RSF FX	
		25 ft. (7.6m)	CK17V-25-R FX	CK17V-25-RSF FX	
	2 Piece	12.5 ft. (3.8m)	CK17V-12-2 FX	CK17V-12-2SF FX	
		25 ft. (7.6m)	CK17V-25-2 FX	CK17V-25-2SF FX	

CK17RG-T & CK17VRG-T | THREAD-ON

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	CK17-12-R RG-T	CK17-12-RSFRG-T	8-1/8" (20.6cm)
		25 ft. (7.6m)	CK17-25-R RG-T	CK17-25-RSFRG-T	
	2 Piece	12.5 ft. (3.8m)	CK17-12-2 RG-T	CK17-12-2SFRG-T	5 oz (141gm)
		25 ft. (7.6m)	CK17-25-2 RG-T	CK17-25-2SFRG-T	
RIGID + VALVE	1 Piece	12.5 ft. (3.8m)	CK17V-12-R RG-T	CK17V-12-RSFRGT	
		25 ft. (7.6m)	CK17V-25-R RG-T	CK17V-25-RSFRGT	
	2 Piece	12.5 ft. (3.8m)	CK17V-12-2 RG-T	CK17V-12-2SFRGT	
		25 ft. (7.6m)	CK17V-25-2 RG-T	CK17V-25-2SFRGT	



CK17 RG



Threaded handle

CK17P | PENCIL | SAME AS CKM150

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	CK17P-12-R RG	CK17P-12-RSF	8-1/2" (21.6cm)
		25 ft. (7.6m)	CK17P-25-R RG	CK17P-25-RSF	
	2 Piece	12.5 ft. (3.8m)	CK17P-12-2	CK17P-12-2SF	3 oz (85gm)
		25 ft. (7.6m)	CK17P-25-2	CK17P-25-2SF	

REPLACEMENT TORCH BODIES

PART #	STYLE
CK17 RG	RIGID
CK17 FX	FLEX
CK17V RG	VALVED RIGID
CK17V FX	VALVED FLEX
CK17P	PENCIL



POWER CABLES/HOSES

1 PIECE STANDARD POWER CABLE



3/8"x24 RH

3/8"x24 RH

1 PIECE SUPER-FLEX POWER CABLE



3/8"x24 RH

3/8"x24 RH

2 PIECE STANDARD POWER CABLE



3/8"x24 RH

ARGON HOSE

WELD LEAD

5/8"x18 RH

2 PIECE SUPER-FLEX POWER CABLE



3/8"x24 RH

ARGON HOSE

WELD LEAD

5/8"x18 RH

LENGTH	STANDARD	SUPER-FLEX
	1 PIECE CABLE	1 PIECE CABLE
12-1/2 ft. (3.8m)	1512PCHF (57Y01R)	1512PCSF (57Y01RSF)
25 ft. (7.6m)	1525PCHF (57Y03R)	1525PCSF (57Y03RSF)

LENGTH	2 PIECE CABLES	2 PIECE CABLES
	1512PCN (57Y01-2)	1512PCNSF (57Y01-2SF)
12-1/2 ft. (3.8m)	1525PCN (57Y03-2)	1525PCNSF (57Y03-2SF)
25 ft. (7.6m)		

LENGTH	WELD LEAD
12-1/2 ft. (3.8m)	1512CN
25 ft. (7.6m)	1525CN

LENGTH	ARGON HOSE	ARGON HOSE
12-1/2 ft. (3.8m)	212AH (45V09)	212AHSF (45V09SF)
25 ft. (7.6m)	225AH (45V10)	225AHSF (45V10SF)

POWER CABLE ADAPTER

15PCA | 105Z57



3/8"x24 RH

5/8"x18 RH

HANDLE Part # HM



Thread-On Handle Part #17HT

DINSE CONNECTORS

DINSE 25
(3/8" 9.5mm)



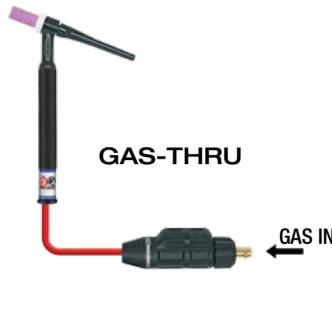
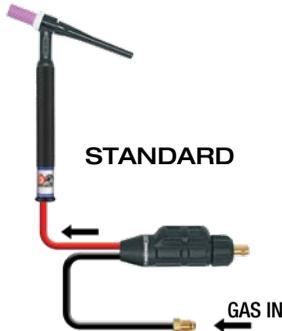
DINSE 35
(1/2" 12.8mm)



DINSE 25M
(3/8" 9.5mm)



DINSE 35M
(1/2" 12.8mm)



STANDARD

DINSE SIZE	ORDER #
3/8" (9mm)	SL2-25
1/2" (12.8mm)	SL2-35

GAS-THRU

DINSE SIZE	ORDER #
3/8" (9mm)	SL2-25M
1/2" (12.8mm)	SL2-35M

TWECO / CAM-LOCK

DINSE STYLE	ORDER #
TWECO	SL-2
CAM-LOCK	SL2-CL

CK26

GAS COOLED | **SAME AS CK210***
 200 amp ACHF or DCSP @ 100%
 3 Series Head Accessories

CK26 & CK26V | RIGID

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	CK26-12-R RG	CK26-12-RSF RG	9-1/2" (24.1cm)
		25 ft. (7.6m)	CK26-25-R RG	CK26-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	CK26-12-2 RG	CK26-12-2SF RG	7-1/2 oz (212gm)
		25 ft. (7.6m)	CK26-25-2 RG	CK26-25-2SF RG	
RIGID + VALVE	1 Piece	12.5 ft. (3.8m)	CK26V-12-R RG	CK26V-12-RSF RG	9-1/2" (24.1cm)
		25 ft. (7.6m)	CK26V-25-R RG	CK26V-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	CK26V-12-2 RG	CK26V-12-2SF RG	7-1/2 oz (212gm)
		25 ft. (7.6m)	CK26V-25-2 RG	CK26V-25-2SF RG	

CK26 & CK26V | FLEX

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
FLEX	1 Piece	12.5 ft. (3.8m)	CK26-12-R FX	CK26-12-RSF FX	9-5/8" (24.4cm)
		25 ft. (7.6m)	CK26-25-R FX	CK26-25-RSF FX	
	2 Piece	12.5 ft. (3.8m)	CK26-12-2 FX	CK26-12-2SF FX	7-1/2 oz (212gm)
		25 ft. (7.6m)	CK26-25-2 FX	CK26-25-2SF FX	
FLEX + VALVE	1 Piece	12.5 ft. (3.8m)	CK26V-12-R FX	CK26V-12-RSF FX	9-5/8" (24.4cm)
		25 ft. (7.6m)	CK26V-25-R FX	CK26V-25-RSF FX	
	2 Piece	12.5 ft. (3.8m)	CK26V-12-2 FX	CK26V-12-2SF FX	7-1/2 oz (212gm)
		25 ft. (7.6m)	CK26V-25-2 FX	CK26V-25-2SF FX	

CK26P | PENCIL | SAME AS CKM210*

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	CK26P-12-R	CK26P-12-RSF	9-1/4" (23.5cm)
		25 ft. (7.6m)	CK26P-25-R	CK26P-25-RSF	
	2 Piece	12.5 ft. (3.8m)	CK26P-12-2	CK26P-12-2SF	3 oz (85gm)
		25 ft. (7.6m)	CK26P-25-2	CK26P-25-2SF	

*CK210 and CKM210 cables use 5/8" x 18RH machine-side fittings, call for torch package part numbers. Cable/hose ordering information on page 11.

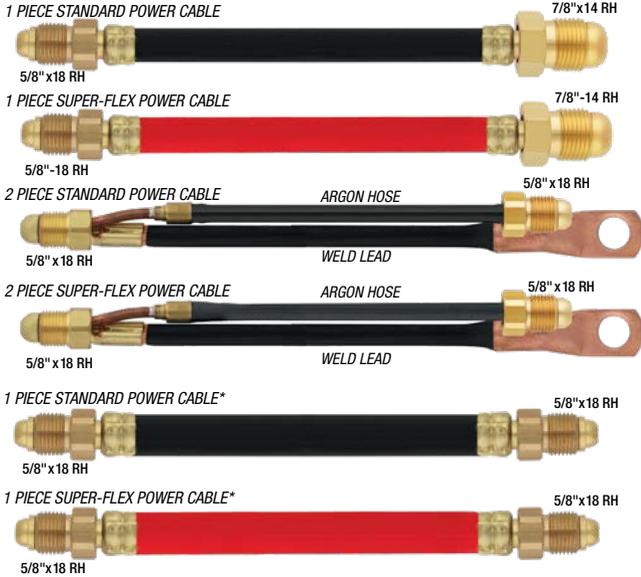


REPLACEMENT TORCH BODIES

PART #	STYLE
CK26 RG	RIGID
CK26 FX	FLEX
CK26V RG	VALVED RIGID
CK26V FX	VALVED FLEX
CK26P	PENCIL



POWER CABLES/HOSES



*Cables included with CK210/CKM210 torch packages, 5/8" x 18RH machine-side fitting.

HANDLE Part # HL



DINSE CONNECTORS

DINSE 25
(3/8" 9.5mm)



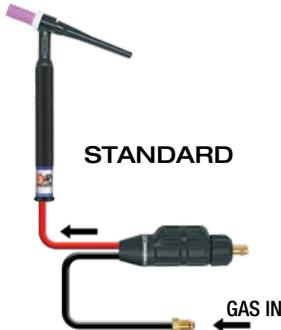
DINSE 35
(1/2" 12.8mm)



DINSE 25M
(3/8" 9.5mm)

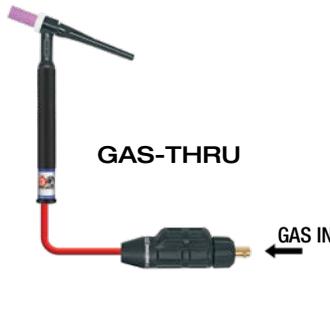


DINSE 35M
(1/2" 12.8mm)



STANDARD

DINSE SIZE	CK26 CABLES	CK210 CABLES
3/8" (9mm)	SL8-25	SL5-25
1/2" (12.8mm)	SL8-35	SL5-35



GAS-THRU

DINSE SIZE	CK26 CABLES	CK210 CABLES
3/8" (9mm)	SL8-25M	SL5-25M
1/2" (12.8mm)	SL8-35M	SL5-35M



TWECO / CAM-LOCK

DINSE STYLE	CK26 CABLES	CK210 CABLES
TWECO	SL-8	SL-5
CAM-LOCK	SL8-CL	SL5-CL

LENGTH	7/8" STANDARD	7/8" SUPER-FLEX
	1 PIECE CABLE	1 PIECE CABLE
12-1/2 ft. (3.8m)	46V28R	46V28RSF
25 ft. (7.6m)	46V30R	46V30RSF

LENGTH	2 PIECE CABLES	2 PIECE CABLES
	412PCN (46V28-2)	412PCNSF (46V28-2SF)
12-1/2 ft. (3.8m)	425PCN (46V30-2)	425PCNSF (46V30-2SF)
25 ft. (7.6m)		

LENGTH	WELD LEAD
12-1/2 ft. (3.8m)	412CN
25 ft. (7.6m)	425CN

LENGTH	ARGON HOSE	ARGON HOSE
	312AH (40V75)	312AHSF (40V75SF)
12-1/2 ft. (3.8m)	325AH (41V30)	325AHSF (41V30SF)
25 ft. (7.6m)		

LENGTH	5/8" STANDARD	5/8" SUPER-FLEX
	1 PIECE CABLE	1 PIECE CABLE
12-1/2 ft. (3.8m)	412PCHF	412PCSF
25 ft. (7.6m)	425PCHF	425PCSF

POWER CABLE ADAPTER

45V62



7/8"-14 RH

5/8" x 18 RH

21HPCA
2310-1879



5/8" x 18 RH

5/8" x 18 RH

350 AMP

CK18

WATER COOLED | **SAME AS CK300**
 350 amp ACHF or DCSP @ 100%
 3 Series Head Accessories

CK18 & CK18V | RIGID

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	3 Piece	12.5 ft. (3.8m)	CK18-12	CK18-12SF	9-1/2" (24.1cm)
		25 ft. (7.6m)	CK18-25	CK18-25SF	
RIGID + VALVE	3 Piece	12.5 ft. (3.8m)	CK18V-12	CK18V-12SF	6.5 oz (184gm)
		25 ft. (7.6m)	CK18V-25	CK18V-25SF	

CK18 RG



CK18 & CK18V | FLEX

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
FLEX	3 Piece	12.5 ft. (3.8m)	CK18-12 FX	CK18-12SF FX	9-1/2" (24.1cm)
		25 ft. (7.6m)	CK18-25 FX	CK18-25SF FX	
FLEX + VALVE	3 Piece	12.5 ft. (3.8m)	CK18V-12 FX	CK18V-12SF FX	6.5 oz (184gm)
		25 ft. (7.6m)	CK18V-25 FX	CK18V-25SF FX	

CK18P | PENCIL

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	3 Piece	12.5 ft. (3.8m)	CK18P-12	CK18P-12SF	9-1/4" (23.5cm)
		25 ft. (7.6m)	CK18P-25	CK18P-25SF	3 oz (85gm)

400 AMP

CK18

HEAVY DUTY WATER COOLED
 400 amp ACHF or DCSP @ 100%
 3 Series Head Accessories

CK18 & CK18V | EXTRA HEAVY DUTY

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	3 Piece	12.5 ft. (3.8m)	CK18-12-R	CK18-12-RSF	9-1/2" (24.1cm)
		25 ft. (7.6m)	CK18-25-R	CK18-25-RSF	
RIGID + VALVE	3 Piece	12.5 ft. (3.8m)	CK18V-12-R	CK18V-12-RSF	6.5 oz (184gm)
		25 ft. (7.6m)	CK18V-25-R	CK18V-25-RSF	

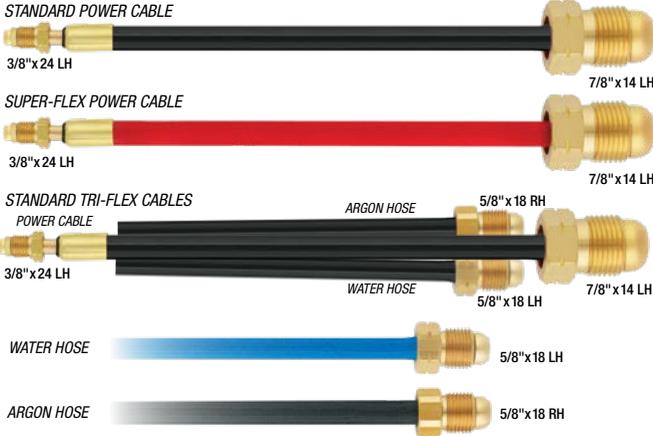
The CK18 Heavy Duty uses the same power cable and lines as the CK510

REPLACEMENT TORCH BODIES

PART #	STYLE
CK18 RG	RIGID
CK18 FX	FLEX
CK18V RG	VALVED RIGID
CK18V FX	VALVED FLEX
CK18P	PENCIL



POWER CABLES/HOSES



LENGTH	STANDARD	SUPER-FLEX
	POWER CABLE	POWER CABLE
12-1/2 ft. (3.8m)	312PC (40V64)	312PCSF (40V64SF)
25 ft. (7.6m)	325PC (41V29)	325PCSF (41V29SF)

LENGTH	TRI-FLEX CABLES	3-PIECE ASSEMBLY
	12-1/2 ft. (3.8m)	312TF
25 ft. (7.6m)	325TF	325SF

LENGTH	WATER HOSE	WATER HOSE
	12-1/2 ft. (3.8m)	312WH (40V74)
25 ft. (7.6m)	325WH (41V32)	325WHSF (41V32SF)

LENGTH	ARGON HOSE	ARGON HOSE
	12-1/2 ft. (3.8m)	312AH (40V75)
25 ft. (7.6m)	325AH (41V30)	325AHSF (41V30SF)

POWER CABLE ADAPTER

2PCA | 45V11 | 7/8"-14 LH | 5/8"-18 LH



HANDLE Part # HL



DINSE CONNECTORS

DINSE 25
(3/8" 9.5mm)



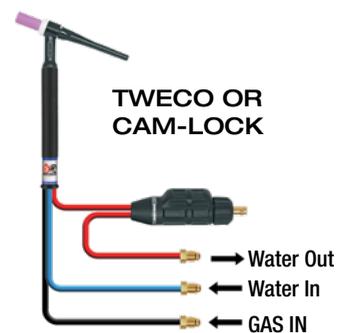
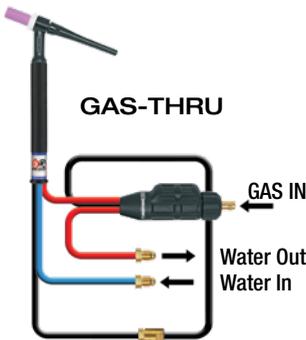
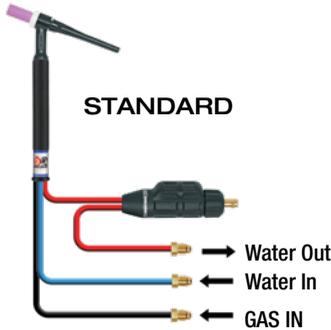
DINSE 35
(1/2" 12.8mm)



DINSE 25M
(3/8" 9.5mm)



DINSE 35M
(1/2" 12.8mm)



STANDARD

DINSE SIZE	ORDER #
3/8" (9mm)	SLWHAT-25
1/2" (12.8mm)	SLWHAT-35

GAS-THRU

DINSE SIZE	ORDER #
3/8" (9mm)	SLWHAT-25M
1/2" (12.8mm)	SLWHAT-35M

TWECO / CAM-LOCK

DINSE STYLE	ORDER #
TWECO	SLWHAT-T
CAM-LOCK	SLWHAT-CL

3 SERIES PARTS (10N) TORCH MODELS 17, 18, 26

THREAD PATTERN: 3/8" x 32

CUP	COLLET BODY	COLLET	HEATSHIELD	TORCH	BACKCAP
<p>ALUMINA</p> <p>3A4 (10N50)</p> <p>3A5 (10N49)</p> <p>3A6 (10N48)</p> <p>3A7 (10N47)</p> <p>3A8 (10N46)</p> <p>3A10 (10N45)</p> <p>3A12 (10N44)</p> <p>ALUMINA - LONG</p> <p>3A5L (10N49L)</p> <p>3A6L (10N48L)</p> <p>3A7L (10N47L)</p> <p>CERAMIC</p> <p>3C4 (105Z43)</p> <p>3C5 (105Z42)</p> <p>3C6 (105Z44)</p> <p>3C7 (105Z45)</p> <p>3C8 (08N78)</p> <p>3C10 (08N79)</p> <p>3C12 (08N80)</p> <p>CERAMIC - LONG</p> <p>3C4L (12N03)</p> <p>3C5L (105Z60)</p> <p>3C6L (12N02)</p> <p>3C7L (105Z61)</p> <p>ALUMINA - GAS LENS</p> <p>3AG4 (54N18)</p> <p>3AG5 (54N17)</p> <p>3AG6 (54N16)</p> <p>3AG7 (54N15)</p> <p>3AG8 (54N14)</p> <p>3AG11 (54N19)</p> <p>3AG12</p> <p>ALUMINA LONG - GAS LENS</p> <p>OVERALL LENGTH 3" (7.6cm)</p> <p>3AG5L (54N17L)</p> <p>3AG6L (54N16L)</p> <p>3AG7L (54N15L)</p> <p>3AG8L (54N14L)</p> <p>CERAMIC - GAS LENS</p> <p>3CG4 (54N35)</p> <p>3CG5 (54N34)</p> <p>3CG6 (54N33)</p> <p>3CG7 (54N32)</p> <p>3CG8 (54N31)</p> <p>3CG11 (54N36)</p> <p>3CG14</p> <p>ALUMINA - LARGE DIAMETER</p> <p>3AG6LD (57N75)</p> <p>3AG8LD (57N74)</p> <p>3AG10LD (53N88)</p> <p>3AG11LD (53N89)</p> <p>3AG12LD (53N87)</p> <p>ALUMINA LONG - LARGE DIAMETER</p> <p>OVERALL LENGTH 2.75" (6.9cm)</p> <p>3AG6LDL (57N75L)</p> <p>3AG8LDL (57N74L)</p> <p>3AG10LDL (53N88L)</p> <p>3AG12LDL (53N87L)</p>	<p>STANDARD</p> <p>3CB20 (10N29)</p> <p>3CB40 (10N30)</p> <p>3CB116 (10N31)</p> <p>3CB332 (10N32)</p> <p>3CB418 (10N28)</p> <p>3CB532 (406488)</p> <p>GAS LENS</p> <p>3GL20 (45V29)</p> <p>3GL40 (45V24)</p> <p>3GL116 (45V25)</p> <p>3GL332 (45V26)</p> <p>3GL418 (45V27)</p> <p>3GL532 (45V28)</p> <p>LARGE DIAMETER</p> <p>3GL116LD (45V116)</p> <p>3GL332LD (45V64)</p> <p>3GL418LD (995795)</p> <p>3GL532LD (45V63)</p> <p>ALUMINA EXTRA LONG - LARGE DIAMETER</p> <p>OVERALL LENGTH 3.25" (8.3cm)</p> <p>3AG6LDXL (57N75XL)</p> <p>3AG8LDXL (57N74XL)</p>	<p>STANDARD</p> <p>3C20 (10N21)</p> <p>3C40 (10N22)</p> <p>3C116 (10N23)</p> <p>3C332 (10N24)</p> <p>3C418 (10N25)</p> <p>3C532 (54N20)</p> <p>WEDGE</p> <p>3C040GS</p> <p>3C116GS</p> <p>3C332GS</p> <p>3C418GS</p> <p>3C532GS</p> <p>REVERSE</p> <p>7C20</p> <p>7C40</p> <p>7C116</p> <p>7C332</p> <p>7C418</p> <p>7C532</p> <p>STANDARD</p> <p>SEE ABOVE</p> <p>WEDGE</p> <p>SEE ABOVE</p> <p>REVERSE</p> <p>SEE ABOVE</p> <p>STANDARD</p> <p>SEE ABOVE</p> <p>WEDGE</p> <p>SEE ABOVE</p> <p>REVERSE</p> <p>SEE ABOVE</p>	<p>STANDARD</p> <p>300HS</p> <p>GAS LENS</p> <p>3GHS</p> <p>LARGE DIAMETER</p> <p>3GHSLD</p>	<p>TORCHES USED ON:</p> <p>CK150</p> <p>CKC150</p> <p>CK210</p> <p>CK300</p> <p>CK510</p> <p>TL210</p> <p>TL300</p> <p>TL18</p> <p>TL26</p> <p>FL3L</p> <p>CK17</p> <p>CK18</p> <p>CK26</p> <p>CKM350</p> <p>CWHTL300*</p> <p>CWH350*</p> <p>CWM350*</p> <p>*Contact CK Worldwide for heatshield.</p>	<p>LONG</p> <p>300L (57Y02)</p> <p>MEDIUM</p> <p>300M (34015)</p> <p>SHORT</p> <p>300S (57Y04)</p>

TUNGSTEN ELECTRODE CONVERSION CHART

SIZE SUFFIX	INCHES	MILLIMETERS
20	.020"	.5mm
40	.040"	1.0mm
116	1/16"	1.6mm
332	3/32"	2.4mm
418	1/8"	3.2mm
532	5/32"	4.0mm
316	3/16"	4.8mm
14	1/4"	6.4mm

3C332 Size Suffix

3 SERIES GAS SAVER PARTS TORCH MODELS 17, 18, 26

THREAD PATTERN: 3/8" x 32

CUP	ADAPTER	COLLET BODY	COLLET	HEATSHIELD	TORCH	BACKCAP
ALUMINA 3A4GS 3A5GS 3A6GS 3A7GS 3A8GS	WITH SCREEN TAS040GS TAS116GS TAS332GS TAS418GS TAS532GS	STANDARD 3CBGS	WEDGE 3C040GS 3C116GS 3C332GS 3C418GS 3C532GS	STANDARD 3HSGS	<p>TORCHES USED ON: CK150 CKC150 CK210 CK300 CK510 TL18 TL210 TL300 TL18 TL26 FL3L CK17 CK18 CK26 MT100* MT400* MT500 CKM350 *Contact CK Worldwide for heatshield.</p>	LONG 300L (57Y02)
CLEAR 3P8GS	WITHOUT SCREEN TA040GS TA418GS TA116GS TA532GS TA332GS					MEDIUM 300M (34015)
ALUMINA 2A4GS 2A7GS 2A5GS 2A8GS 2A6GS	WITH SCREEN <i>SEE ABOVE</i>	SHORT 4CBGS	SHORT WEDGE 4C040GS 4C116GS 4C332GS 4C418GS 4C532GS	SHORT 3HSGS		SHORT 300S (57Y04)
CLEAR 2P8GS	WITHOUT SCREEN <i>SEE ABOVE</i>					
ALUMINA - GAS LENS 2A12GSGLD	LARGE DIAMETER WITH SCREEN TAS040GSGLD TAS116GSGLD TAS332GSGLD TAS418GSGLD TAS532GSGLD	LARGE DIAMETER 4CBGSGLD	SHORT WEDGE 4C040GS 4C116GS 4C332GS 4C418GS 4C532GS	LARGE DIAMETER 4HSGSLD		
ALUMINA 4A18GSGLD						
CLEAR 4P18GSGLD						

Pre-packaged kits containing common consumables for our 3 Series torches.

ACCESSORY KITS

3 SERIES | ORDER #AK-2

ITEM (Quantity 1 Each)	PART #
Short Backcap	300S (57Y04)
.040" (1.0mm) Collet	3C40 (10N22)
1/16" (1.6mm) Collet	3C116 (10N23)
3/32" (2.4mm) Collet	3C332 (10N24)
.040" (1.0mm) Collet Body	3CB40 (10N30)
1/16" (1.6mm) Collet Body	3CB116 (10N31)
3/32" (2.4mm) Collet Body	3CB332 (10N32)
#4 (1/4" 6.4mm) Alumina Cup	3A4 (10N50)
#5 (5/16" 8.0mm) Alumina Cup	3A5 (10N49)
#6 (3/8" 9.6mm) Alumina Cup	3A6 (10N48)
.040" (1.0mm) x 7" 2% Ceriated Tungsten	T0407GC2
1/16" (1.6mm) x 7" 2% Ceriated Tungsten	T1167GC2
3/32" (2.4mm) x 7" 2% Ceriated Tungsten	T3327GC2

3 SERIES GAS SAVER | ORDER #AK-3GS

ITEM (Quantity 1 Each)	PART #
Short Backcap	300S (57Y04)
1/16" (1.6mm) Collet	3C116GS
3/32" (2.4mm) Collet	3C332GS
1/8" (3.2mm) Collet	3C418GS
1/16" (1.6mm) Tungsten Adapter	TAS116GS
3/32" (2.4mm) Tungsten Adapter	TAS332GS
1/8" (3.2mm) Tungsten Adapter	TAS418GS
Collet Body	3CBGS
Heatshield	3HSGS
#5 (5/16" 8.0mm) Alumina Cup	3A5GS
#6 (3/8" 9.6mm) Alumina Cup	3A6GS
#8 (1/2" 12.8mm) Pyrex Cup	3P8GS
1/16" (1.6mm) x 7" 2% Ceriated Tungsten	T1167GC2
3/32" (2.4mm) x 7" 2% Ceriated Tungsten	T3327GC2
1/8" (3.2mm) x 7" 2% Ceriated Tungsten	T187GC2

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Excessive Electrode Consumption	Inadequate gas flow	Increase gas flow
	Improper size electrode for current required	Use larger electrode
	Operating of reverse polarity	Use larger electrode or change polarity
	Electrode contamination	Remove contaminated portion, then prepare again
	Excessive heating inside torch	Replace collect, try wedge collet or reverse collet
	Electrode oxidizing during cooling	Increase gas post flow time to 1 sec. per 10 amps
	Shield gas incorrect	Change to proper gas (no oxygen or Co2)
Erratic Arc	Incorrect voltage (arc too long)	Maintain short arc length
	Current too low for electrode size	Use smaller electrode or increase current
	Electrode contaminated	Remove contaminated portion, then prepare again
	Joint too narrow	Open joint groove
	Contaminated shield gas, dark stains on the electrode or weld bead indicate contamination	Most common cause is moisture or aspirated air in gas stream. Use welding grade gas only. Find the source of the contamination and eliminate it promptly.
	Base metal is oxidized, dirty or oily	Use appropriate chemical cleaners, wire brush or abrasives prior to welding.
Inclusion of Tungsten or Oxides in Weld	Poor scratch starting technique	Many codes do not allow scratch starts. Use copper strike plate. Use high-frequency arc starter.
	Excessive current for tungsten size used	Reduce current or use larger electrode
	Accidental contact of electrode with puddle	Maintain proper arc length
	Accidental contact of electrode to filler rod	Maintain a distance between electrode and filler metal
	Using excessive electrode extension	Reduce electrode extension to recommended limits
	Inadequate shielding or excessive drafts	Increase gas flow, shield arc from wind, or use gas lens
	Wrong gas	Do not use Ar-O2 or Ar-Co2 GMA (MIG) gases for TIG welding
	Heavy surface oxides not being removed	Use ACHF, adjust balance control for maximum cleaning, or wire brush and clean the weld joint prior to welding.
Porosity in Weld Deposit	Entrapped impurities, hydrogen, air, nitrogen, water vapor	Do not weld on wet material. Remove condensation from line
	Defective gas hose or loose connection	Check hoses and connections for leaks
	Filler material is damp (particularly aluminum)	Dry filler metal in oven prior to welding
	Filler material is oily or dusty	Replace filler metal
	Alloy impurities in the base metal such as sulphur, phosphorus, lead and zinc	Change to a different alloy composition which is weldable. These impurities can cause a tendency to crack when hot.
	Excessive travel speed with rapid freezing of weld trapping gases before they escape	Lower the travel speed
	Contaminated gas shield	Replace the shielding gas
Cracking in Welds	Hot cracking in heavy section or with metals which are hot shorts	Preheat, increase weld bead cross-section size, change weld bead contour.
	Crater cracks due to improperly breaking the arc or terminating the weld at the joint edge	Reverse direction and weld back into previous weld at edge. Use remote or foot control to manually down slope current.
	Post weld cold cracking, due to excessive joint restraint, rapid cooling, or hydrogen embrittlement	Preheat prior to welding, use pure to non-contaminated gas. Increase the bead size. Prevent craters or notches. Change the weld joint design.
	Centerline cracks in single pass welds	Increase bead size. Decrease root opening, use preheat, prevent craters.
	Underbead cracking from brittle microstructure	Eliminate sources of hydrogen, joint restraint, and use preheat.
Inadequate Shielding	Gas flow blockage or leak in hoses or torch	Locate and eliminate blockage or leak.
	Excessive travel speed exposes molten weld to atmospheric contamination	Use slower travel speed or carefully increase the flow rate to a safe level below creating excessive turbulence. Use trailing shield cup.
	Wind or drafts	Set up screens around the weld area
	Excessive electrode stickout	Reduce electrode stickout. Use a larger size cup.
	Excessive turbulence in gas stream	Change to gas saver parts or gas lens parts.
Arc Blow	Induced magnetic field from DC weld current	Change to ACHF current. Rearrange the split ground connection.
	Arc is unstable due to magnetic influences	Reduce weld current and use arc length as short as possible.
Short Parts Life	Short water cooled leads life	Verify coolant flow direction, return flow must be on the power cable lead.
	Cup shattering or breaking in use	Change cup size or type, change tungsten position, refer to CK Worldwide technical specifications available at www.CKWorldwide.com
	Short collet life	Ordinary style is split and twists or jams, change to wedge style.
	Short torch head life	Do not operate beyond rated capacity, use water cooled model, do not bend rigid torches.
	Gas hoses ballooning, bursting or blowing off while hot	Incorrect flowmeter, TIG flowmeters operate at 35 psi with low flows. MIG flowmeters operate with high flows at 65 psi or more.

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