



WORLDWIDE



**THE STANDARD
IN TIG WELDING**



SOLUTIONS GUIDE



FORM 3010 JANUARY 2019

Toll Free: (800) 426.0877 www.CKWORLDWIDE.com

Get New TIG Welding Business!

GENERATE new business through innovative, and specifically designed products

PROVIDE solutions to increase productivity and create repeat sales

UPGRADE current torch setups, hoses, consumables, and accessories

Use this guide by referencing a specific industry, torch, consumable, or accessory to find a CK solution to any TIG welding scenario.

Selling TIG products has become very price competitive with no real advantage for the end user. With this booklet you will have the ability to provide CK Worldwide TIG welding solutions based on actual industry applications. Learn to upgrade TIG torches and accessories specifically for the customer and deliver real solutions to everyday situations. CK MasterTIG and UltraTIG limited distribution products increase your profit margin and are not available through all welding distributors or wholesalers. Use this guide to help in establishing repeat high profit margin business, and provide your customers with a dependable source of quality TIG products.

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CONNECT WITH US ON:



LARGE DIAMETER GAS SAVER™ KITS

CK EXCLUSIVE

Use these conversion kits and save up to 40% of shield gas consumption plus save money on replacement parts.

- 1-1/8 inch I.D. (28.6mm) clear high temperature Pyrex nozzle
- Improves visibility versus standard nozzles
- Weld titanium at low amps without a trailing shield
- Great for tack welding and small crack repair outside of chamber



2 SERIES | LRG. DIAMETER | GAS SAVER KITS

TORCHES	TUNGSTEN	CUP TYPE	ORDER #
CK9, CK20 (2 SERIES)	1/16" (1.6mm)	ALUMINA	D2GS116LD-A
	3/32" (2.4mm)	ALUMINA	D2GS332LD-A
	1/8" (3.2mm)	ALUMINA	D2GS418LD-A
	1/16" (1.6mm)	PYREX	D2GS116LD
	3/32" (2.4mm)	PYREX	D2GS332LD
	1/8" (3.2mm)	PYREX	D2GS418LD

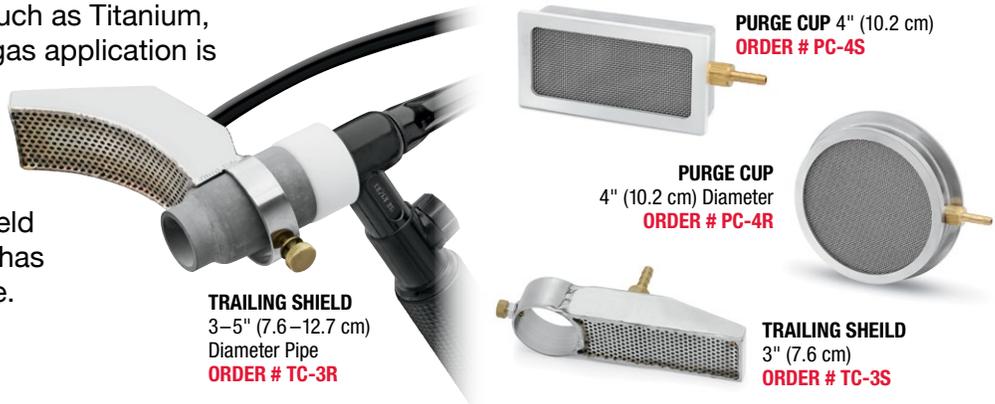
3 SERIES | LRG. DIAMETER | GAS SAVER KITS

TORCHES	TUNGSTEN	CUP TYPE	ORDER #
CK17, CK18, CK26 (3 SERIES)	1/16" (1.6mm)	ALUMINA	D4GS116LD-A
	3/32" (2.4mm)	ALUMINA	D4GS332LD-A
	1/8" (3.2mm)	ALUMINA	D4GS418LD-A
	1/16" (1.6mm)	PYREX	D4GS116LD
	3/32" (2.4mm)	PYREX	D4GS332LD
	1/8" (3.2mm)	PYREX	D4GS418LD

PREMIUM TRAILING CUPS/PURGE CUPS

When welding with metals such as Titanium, a secondary inert shielding gas application is necessary to protect the cooling weld bead and heat-affected zone.

Trailing cups prevent oxidation by shielding the weld from the atmosphere until it has cooled to a safe temperature.



TRAILING SHIELD
3-5" (7.6-12.7 cm)
Diameter Pipe
ORDER # TC-3R

PURGE CUP 4" (10.2 cm)
ORDER # PC-4S

PURGE CUP
4" (10.2 cm) Diameter
ORDER # PC-4R

TRAILING SHIELD
3" (7.6 cm)
ORDER # TC-3S

CUSTOM-SIZED | PATENTED CK EXCLUSIVE PURGE CHAMBER

BENEFITS

- Less argon required
- Collapsible, easily stored
- Multiple accessory & glove ports
- Less expensive
- Less time to fill
- Vacuum drawn
- Facilitates welding grade atmosphere
- 30 inch (76.8 cm) diameter

SPECIFICATIONS

HEIGHT	20" (51.2cm)
WIDTH	30" (76.8cm)*
SHIPPING WEIGHT	47 lbs. (21.3kg)
ZIPPER LENGTH	60" (153.6cm)
STANDARD SIZE	30" (76.8cm) diameter
	24" (61.4cm) base

ORDER # PC2000-24

The patented CK Flexible Purge Chamber is used in the Tungsten Inert Gas (TIG) process to provide a completely inert atmosphere for the welding of reactive metals such as titanium, molybdenum, nickel-based and aluminum-based alloys, as well as non-reactive metals like stainless steel. Unique to this design is the ability to draw a vacuum around the product to be welded by collapsing the chamber. The chamber is then filled through a perforated hose that encircles the bottom of the chamber allowing the argon gas to expel all atmospheric gases more effectively through the top valve port. This significantly reduces the time required to reach an inert atmosphere suitable for welding, while using considerably less gas than traditional rigid purge chambers.



**Contact CK Worldwide for price and availability on other sizes.*

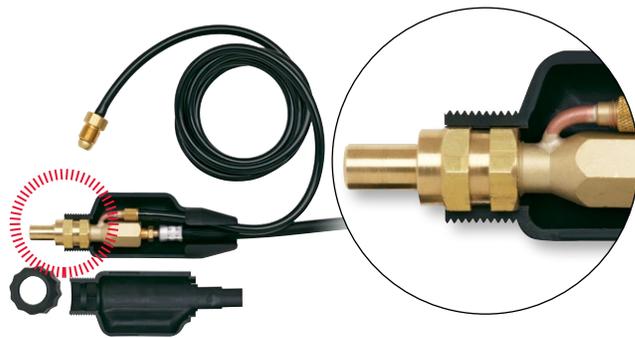
INCLUDED PARTS:

- 115V Vacuum pump (220V also available)
- Dual flowmeter/regulator
- 2 Work stations
- 2 Sets of gloves
- 4 Accessory ports
- Heat blanket
- 10' (3m) Argon hose
- 10' (3m) Vacuum hose
- Repair kit
- Storage container

SAFE-LOC™—CABLE EXTENDERS

- Allows quick and easy cable extension “whips” to be made
- All electrical connections are insulated with rugged poly-resin clamshell
- Tweco, Dinse or Camlock style twist fittings available
- Water-cooled or gas-cooled torches are safely and efficiently extended up to 100 feet
- Great for extending “Stinger” electrode holders

Refer to Accessories page 20 for more details.



STEADY-GRIP™ AMPERAGE CONTROL *CK EXCLUSIVE*

- Replace foot pedal amperage controls with fingertip operated amperage controls
- Velcro strap allows amperage control to quickly mount on any TIG torch or Stick electrode holder
- Amperage controls available as a complete handle assembly
- Rotary or linear potentiometer style also available
- Fits most popular TIG machines
- Custom lengths available up to 200 feet



Refer to Accessories page 20 for more details.
(Flex-Loc™ torch not included.)

CKC150 STAINLESS STEEL HEAD *CK EXCLUSIVE*

- 150 amp, 100% duty cycle 17 Series torch designed for harsh welding environments
- Heavy duty stainless steel head eliminates stripping or galling of threads
- Thick walled tube in neck resists breaking or bending
- All o-ring constructed valve eliminates worn out or broken ball valves



Refer to page 7 for more details.

CKC150 | CONTRACTOR SPECIAL

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	CKC1512H	CKC1512HSF	7-3/4" (19.6cm)
		25 ft. (7.6m)	CKC1525H	CKC1525HSF	
	2 Piece	12.5 ft. (3.8m)	CKC1512N	CKC1512NSF	4-1/2 oz (127gm)
		25 ft. (7.6m)	CKC1525N	CKC1525NSF	
RIGID + VALVE	1 Piece	12.5 ft. (3.8m)	CKC1512VH	CKC1512VHSF	STAINLESS STEEL HEAD
		25 ft. (7.6m)	CKC1525VH	CKC1525VHSF	
	2 Piece	12.5 ft. (3.8m)	CKC1512VN	CKC1512VNSF	
		25 ft. (7.6m)	CKC1525VN	CKC1525VNSF	

FLEX-LOC™ TORCHES—360° ANGLE TORCH

- 360 degree variable angle torch head
- Locks in any position
- Interchangeable head allows different configurations and head sizes
- Great for “walking the cup” on open root welds for pipe welding
- Access hard to reach welds ergonomically
- Helps prevent carpal tunnel syndrome
- Water or gas cooled



Refer to CK9, CK17, CK20, or CK26 page 6, 7, 8 or 10 for more details.

MT200-AC/DC TIG WELDING SYSTEM

CK EXCLUSIVE

The MT200-AC/DC is the answer to both creativity and production driven TIG welding. This innovative TIG welding machine provides the ability to quickly and efficiently adapt to dynamic welding situations, while maintaining the same quality of experience you have come to expect from CK Worldwide.

Its compact portable design allows you to easily tackle any project from fabrication and education to aerospace and nuclear applications. Whether you TIG weld for enjoyment or as a career you will find that the MT200 can help you accomplish your toughest welding challenges.

With background testing performed by production welders and the best TIG welding professionals in the industry the MT200 delivers precision welding in a conveniently packaged system.



- High-performance dual voltage inverter for 115V and 220V
- Two dynamic welding modes: GTAW (TIG) and SMAW (Stick)
- Easy-to-use interface allows for quick setting adjustments
- Compact, portable design for use in multiple applications

COMPLETE KIT INCLUDES:

- MT200-AC/DC
- CK17 Flex-Head Torch with 12.5' (3.8m) Super-Flex™ Cables
- Dinse Connector
- AK-3 Accessories/Consumables Kit
- Foot Pedal Amperage Control
- Ground Clamp with 12.5' (3.8m) Cable
- Single Flow Regulator
- 6' (1.8m) Argon Hose
- 220V to 115V Power Adapter

LARGE DIAMETER GAS SAVER™ KITS

CK EXCLUSIVE

Alloys such as Titanium that require extra shield gas coverage are now being used for aerospace and motorsport components. Standard and large diameter gas lenses are not adequate enough to insure a larger surface area of shield gas coverage. CK Worldwide's Large Diameter Gas Saver is ideal for titanium tubing. High temperature Pyrex glass gas cups insure full visibility of the weld puddle and directs a uniform gas flow pattern over a very large surface area.

Aerospace and motorsport components commonly present odd angles that need to be welded. Standard tungsten stick-out beyond the gas cup does not allow the torch to be put in the proper position to weld those angles. The Large Diameter Gas Saver allows the tungsten to extend up to 1-1/2 inch (38.1mm) beyond the edge of the gas cup giving the welder the ability to access the weld without getting the torch into the angle.

- 1-1/8 inch I.D. (28.6mm) clear high temperature Pyrex nozzle
- Improves visibility versus standard nozzles
- Weld titanium at low amps without a trailing shield
- Great for tack welding and small crack repair outside of chamber



2 SERIES | LRG. DIAMETER | GAS SAVER KITS

TORCHES	TUNGSTEN	CUP TYPE	ORDER #
CK9, CK20 (2 SERIES)	1/16" (1.6mm)	ALUMINA	D2GS116LD-A
	3/32" (2.4mm)	ALUMINA	D2GS332LD-A
	1/8" (3.2mm)	ALUMINA	D2GS418LD-A
	1/16" (1.6mm)	PYREX	D2GS116LD
	3/32" (2.4mm)	PYREX	D2GS332LD
	1/8" (3.2mm)	PYREX	D2GS418LD

3 SERIES | LRG. DIAMETER | GAS SAVER KITS

TORCHES	TUNGSTEN	CUP TYPE	ORDER #
CK17, CK18, CK26 (3 SERIES)	1/16" (1.6mm)	ALUMINA	D4GS116LD-A
	3/32" (2.4mm)	ALUMINA	D4GS332LD-A
	1/8" (3.2mm)	ALUMINA	D4GS418LD-A
	1/16" (1.6mm)	PYREX	D4GS116LD
	3/32" (2.4mm)	PYREX	D4GS332LD
	1/8" (3.2mm)	PYREX	D4GS418LD

CK9

GAS COOLED | **SAME AS CK100**
 125 amp ACHF or DCSP @ 100%
 2 Series Head Accessories

- Light weight, light duty torch
Industry standard gas-cooled 2 Series torch
- Hardened brass alloy head
Reduces thread damage
- Silicon rubber insulation
High frequency protection



TORCH UPGRADES

FL130 & FL130V | FLEX-LOC

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
FL2L	1 Piece	12.5 ft. (3.8m)	FL1312	FL1312SF	7-3/4" (19.6cm)
		25 ft. (7.6m)	FL1325	FL1325SF	
FL2L + VALVE	1 Piece	12.5 ft. (3.8m)	FL1312V	FL1312VSF	4-3/4 oz (135gm)
		25 ft. (7.6m)	FL1325V	FL1325VSF	



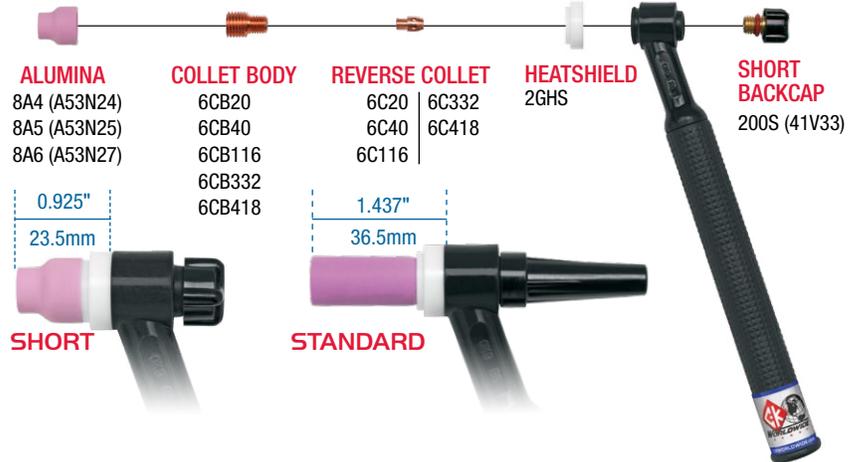
- 360 degree variable angle torch head
- Locks in any position
- Interchangeable head allows different configurations and head sizes
- Great for "walking the cup" on open root welds for pipe welding
- Access hard to reach welds ergonomically

APPLICATIONS:

Cup walking on pipe root welds, welds that require a mirror to access weldment.

STUBBY CONSUMABLES

- Shortens front end of torch to access hard to reach weld joints
- Uses 24 Series nozzles
- Reduces overall length by 1/2 inch (12.8mm)
- Use with short back cap for smallest configuration



SUPER-FLEX™ CABLES

- Lightest most flexible cable assemblies available
- Fits standard gas-cooled or water-cooled torch packages
- Stays flexible even in the coldest environments
- Silicon rubber hose construction with a nylon over-braid to resist abrasion
- Great for intricate, precise welding applications



MOST POPULAR TORCH IN THE WORLD

GAS COOLED | SAME AS CK150
150 amp ACHF or DCSP @ 100%
3 Series Head Accessories

- Largest mass head insert
Maximum cooling, longer life
- Hardened brass alloy head
Reduces thread damage
- Silicon rubber insulation, heavy-duty construction
High frequency protection, longer welding time at 150 amps

TORCH UPGRADES

FL150 & FL150V | FLEX-LOC

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
FL3L	1 Piece	12.5 ft. (3.8m)	FL1512	FL1512SF	8-1/2" (21.6cm)
		25 ft. (7.6m)	FL1525	FL1525SF	
FL3L + VALVE	1 Piece	12.5 ft. (3.8m)	FL1512V	FL1512VSF	7 oz (198gm)
		25 ft. (7.6m)	FL1525V	FL1525VSF	

- 360 degree variable angle torch head
- Locks in any position
- Interchangeable head allows different configurations and head sizes
- Great for "walking the cup" on open root welds for pipe welding
- Access hard to reach welds ergonomically



150 Amps

360°

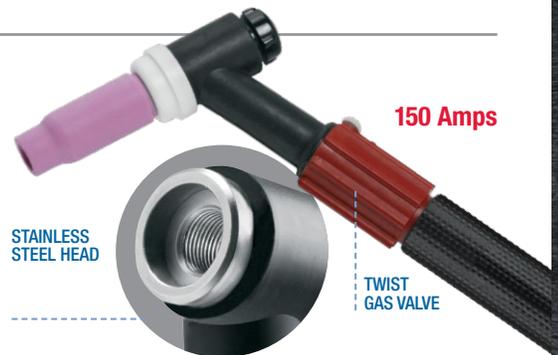
APPLICATIONS:

Cup walking on pipe root welds, welds that require a mirror to access weldment.

CKC150 | CONTRACTOR SPECIAL

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	CKC1512H	CKC1512HSF	7-3/4" (19.6cm)
		25 ft. (7.6m)	CKC1525H	CKC1525HSF	
	2 Piece	12.5 ft. (3.8m)	CKC1512N	CKC1512NSF	4-1/2 oz (127gm)
		25 ft. (7.6m)	CKC1525N	CKC1525NSF	
RIGID + VALVE	1 Piece	12.5 ft. (3.8m)	CKC1512VH	CKC1512VHSF	STAINLESS STEEL HEAD
		25 ft. (7.6m)	CKC1525VH	CKC1525VHSF	
	2 Piece	12.5 ft. (3.8m)	CKC1512VN	CKC1512VNSF	STAINLESS STEEL HEAD
		25 ft. (7.6m)	CKC1525VN	CKC1525VNSF	

- Designed for harsh welding environments
- Heavy duty stainless steel head eliminates stripping or galling of threads
- Thick walled tube in neck resists breaking or bending
- All o-ring constructed valve eliminates worn-out or broken ball valves



150 Amps

STAINLESS
STEEL HEAD

TWIST
GAS VALVE

APPLICATIONS:

Construction companies, shipyards, vocational schools — any harsh welding environment.

TL26 & TL26V | RIGID | TRIM-LINE SERIES

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	TL26-12-R RG	TL26-12-RSF RG	8-1/8" (20.6cm)
		25 ft. (7.6m)	TL26-25-R RG	TL26-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	TL26-12-2 RG	TL26-12-2SF RG	5 oz (141gm)
		25 ft. (7.6m)	TL26-25-2 RG	TL26-25-2SF RG	
RIGID + VALVE	1 Piece	12.5 ft. (3.8m)	TL26V-12-R RG	TL26V-12-RSF RG	7/8" x 14RH power cable connections
		25 ft. (7.6m)	TL26V-25-R RG	TL26V-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	TL26V-12-2 RG	TL26V-12-2SF RG	7/8" x 14RH power cable connections
		25 ft. (7.6m)	TL26V-25-2 RG	TL26V-25-2SF RG	

- High amperage torch with physical size of 17 Series
- Larger hardened brass head insert allows 200 amp capacity



200 Amps

TRIM-LINE™

APPLICATIONS:

Construction companies, shipyards, job shops, field installers, and any application requiring a high amperage torch when a water cooler is not practical.

CK26

GAS COOLED | **SAME AS CK210**

200 amp ACHF or DCSP @ 100%

3 Series Head Accessories

- High amperage, gas-cooled torch
Great for field-work, pipeline, and extended distance welding
- Largest mass head insert *Maximum cooling, longer life*
- Hardened brass alloy head *Reduces thread damage*
- Silicon rubber insulation, heavy-duty construction
High frequency protection, longer welding time at 200 amps



TORCH UPGRADES

TL26 & TL26V | RIGID | TRIM-LINE SERIES

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	1 Piece	12.5 ft. (3.8m)	TL26-12-R RG	TL26-12-RSF RG	8-1/8" (20.6cm)
		25 ft. (7.6m)	TL26-25-R RG	TL26-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	TL26-12-2 RG	TL26-12-2SF RG	5 oz (141gm)
		25 ft. (7.6m)	TL26-25-2 RG	TL26-25-2SF RG	
RIGID + VALVE	1 Piece	12.5 ft. (3.8m)	TL26V-12-R RG	TL26V-12-RSF RG	7/8" x 14RH power cable connections
		25 ft. (7.6m)	TL26V-25-R RG	TL26V-25-RSF RG	
	2 Piece	12.5 ft. (3.8m)	TL26V-12-2 RG	TL26V-12-2SF RG	
		25 ft. (7.6m)	TL26V-25-2 RG	TL26V-25-2SF RG	

- Smallest 200 amp torch available in the market
- High amperage torch with physical size of 17 Series
- Larger hardened brass head insert allows 200 amp capacity



200 Amps

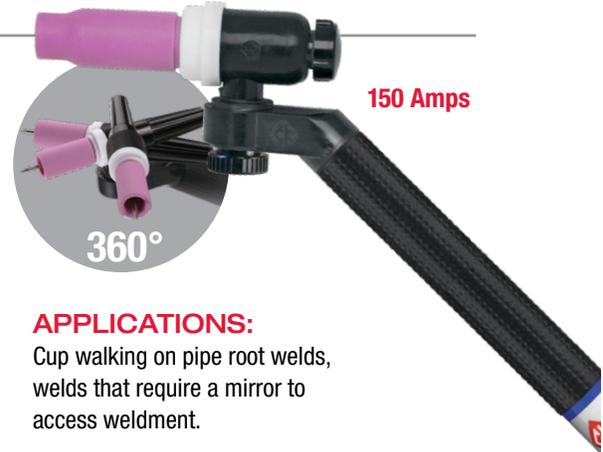
APPLICATIONS:

Construction companies, shipyards, job shops, field installers, and any application requiring a high amperage torch when a water cooler is not practical.

FL150 & FL150V | FLEX-LOC

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
FL3L	1 Piece	12.5 ft. (3.8m)	FL1512	FL1512SF	8-1/2" (21.6cm)
		25 ft. (7.6m)	FL1525	FL1525SF	
FL3L + VALVE	1 Piece	12.5 ft. (3.8m)	FL1512V	FL1512VSF	7 oz (198gm)
		25 ft. (7.6m)	FL1525V	FL1525VSF	

- 360 degree variable angle torch head
- Locks in any position
- Interchangeable head allows different configurations and head sizes
- Great for "walking the cup" on open root welds for pipe welding
- Access hard to reach welds ergonomically



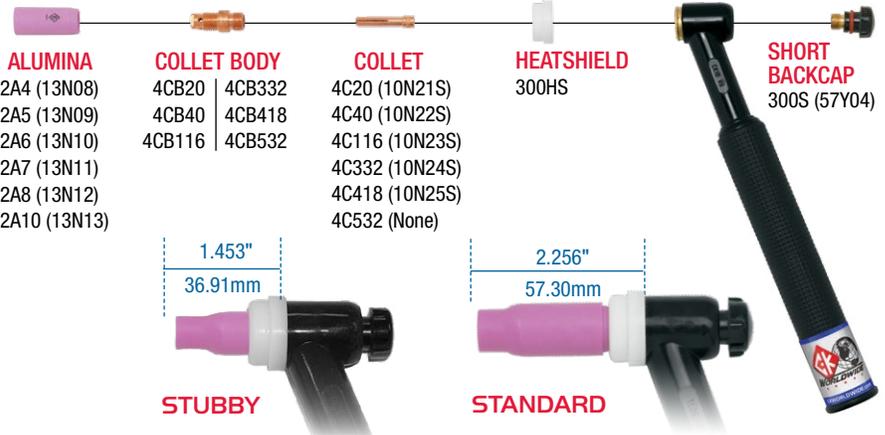
150 Amps

APPLICATIONS:

Cup walking on pipe root welds, welds that require a mirror to access weldment.

STUBBY CONSUMABLES

- Shortens front end of torch to access hard to reach weld joints
- Uses 13N Series nozzles
- Reduces overall length by 3/4 inch (19.2mm)
- Use with short back cap for smallest configuration



ALUMINA
2A4 (13N08)
2A5 (13N09)
2A6 (13N10)
2A7 (13N11)
2A8 (13N12)
2A10 (13N13)

COLLET BODY
4CB20 | 4CB332
4CB40 | 4CB418
4CB116 | 4CB532

COLLET
4C20 (10N21S)
4C40 (10N22S)
4C116 (10N23S)
4C332 (10N24S)
4C418 (10N25S)
4C532 (None)

HEATSHIELD
300HS

SHORT BACKCAP
300S (57Y04)

1.453"
36.91mm

STUBBY

2.256"
57.30mm

STANDARD

CK18



**LARGEST WATER JACKET AVAILABLE;
300% MORE COOLING**

WATER COOLED | SAME AS CK300

350 amp ACHF or DCSP @ 100%

3 Series Head Accessories

- Largest water-cooled head insert
Maximum cooling, longer life
- Fail-Safe™ Hose Connections *Eliminates wire ties with high-quality compression fittings*
- Hardened brass alloy head *Reduces thread damage*
- Silicon rubber insulation, heavy duty construction
High frequency protection, longer welding time at 350 amps

CK18

350 AMP

UPGRADE OPTIONS

TORCH UPGRADES

TL18 & TL18V | RIGID | TRIM-LINE SERIES

HEAD STYLE	CABLE	CABLE LENGTH	3-PIECE VINYL #	SUPER-FLEX #	SPECIFICATIONS
RIGID	3-Piece Vinyl/ SUPER-FLEX	12.5 ft. (3.8m)	TL18-12	TL18-12SF	8" (20.3cm)
		25 ft. (7.6m)	TL18-25	TL18-25SF	5 oz (141gm)
RIGID + VALVE	3-Piece Vinyl/ SUPER-FLEX	12.5 ft. (3.8m)	TL18V-12	TL18V-12SF	7/8" x 14RH power cable connections
		25 ft. (7.6m)	TL18V-25	TL18V-25SF	

- Smallest 350 amp water-cooled torch at 100% duty cycle
- Cooler running torch allows longer life of consumables
- Same physical size as 17 Series
- Lighter weight and size equals greater productivity and less operator fatigue



350 Amps

APPLICATIONS:

High production TIG applications, aluminum boat manufacturers, job shops, any welding application where a standard 18 Series torch is too bulky.

CK510 | HEAVY DUTY

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX #	SPECIFICATIONS
RIGID	3 Piece/ Super-Flex	12.5 ft. (3.8m)	CK5112	CK5112SF	9-1/4" (23.5cm)
		25 ft. (7.6m)	CK5125	CK5125SF	
RIGID + VALVE	3 Piece/ Super-Flex	12.5 ft. (3.8m)	CK5112V	CK5112VSF	6-3/4 oz (191gm)
		25 ft. (7.6m)	CK5125V	CK5125VSF	

- Most versatile water-cooled torch available
- Uses .020 inch (.5mm) up to 1/4" (6.4mm) tungsten electrodes
- Large water jacket cools torch more efficiently
- Cooler running torch allows longer life of consumables

**SMALLEST 500 AMP
TORCH IN THE WORLD!**



500 Amps

APPLICATIONS:

High amperage welds, heavy aluminum, heavy copper, job shops requiring a versatile torch using .020" (.5mm) to 1/4" (6.4mm) tungsten.

INCREASED COOLING CAPACITY *Included in every CK water-cooled torch*

CK WORLDWIDE



CK18

MAX-FLO™

- Up to 4 x the surface area for maximum heat transfer
- Cooler running torch
- Increased amperage capacity
- Longer consumable life
- Less down time
- Will hook up to standard cables and hoses

COMPETITOR'S TORCH



CK20

WATER COOLED | **SAME AS CK200**

250 amp ACHF or DCSP @ 100%

2 Series Head Accessories

- Most popular water-cooled torch
Industry standard water-cooled 2 series torch
- Fail-Safe™ Hose Connections
Eliminates wire ties with high-quality compression fittings
- Hardened brass alloy head *Reduces thread damage*
- Silicon rubber insulation, heavy-duty construction
High frequency protection, longer welding time at 200 amps



MOST POPULAR WATER-COOLED TORCH

TORCH UPGRADES

FL230 | FLEX-LOC

HEAD STYLE	CABLE	CABLE LENGTH	TRI-FLEX #	SUPER-FLEX #	SPECIFICATIONS
FL2L	Tri-Flex/ SUPER-FLEX	12.5 ft. (3.8m)	FL2312	FL2312SF	7-3/4" (19.6cm)
		25 ft. (7.6m)	FL2325	FL2325SF	5 oz (141gm)

- 360 degree variable angle torch head, locks in any position
- Interchangeable head allows different configurations and head sizes
- Great for "walking the cup" on open root welds for pipe welding
- Access hard to reach welds ergonomically



APPLICATIONS:

Cup walking on pipe root welds, welds that require a mirror to access weldment, welds requiring different tungsten sizes.

CK230 & CK230V | HEAVY DUTY

HEAD STYLE	CABLE	CABLE LENGTH	TRI-FLEX #	SUPER-FLEX #	SPECIFICATIONS
RIGID	Tri-Flex/ SUPER-FLEX	12.5 ft. (3.8m)	CK2312	CK2312SF	8-1/4" (20.9cm)
		25 ft. (7.6m)	CK2325	CK2325SF	3-3/4 oz (106gm)
RIGID + VALVE	Tri-Flex/ SUPER-FLEX	12.5 ft. (3.8m)	CK2312V	CK2312VSF	3-3/4 oz (106gm)
		25 ft. (7.6m)	CK2325V	CK2325VSF	

- Heavy duty 300 amp 100% duty cycle torch
- Larger water jacket design runs cooler giving longer life to consumables
- Fully achieve 1/8 inch tungsten electrode capability on thick aluminum joints
- Uses 20 series consumables

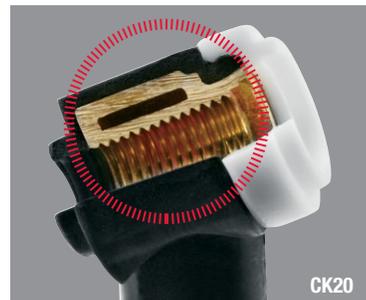


APPLICATIONS:

Aluminum boat manufacturers, motorcycle manufacturers, bicycle manufacturers, high-amperage welding applications with space restrictions.

INCREASED COOLING CAPACITY *Included in every CK water-cooled torch*

CK WORLDWIDE



MAX-FLO™

- Up to 4 x the surface area for maximum heat transfer
- Cooler running torch
- Increased amperage capacity
- Longer consumable life
- Less down time
- Will hook up to standard cables and hoses

COMPETITOR'S TORCH



MACHINE ROBOTIC TORCHES

Largest Line of Machine Robotic Torches

- All torches are back-loaded, no need to remove cup to make adjustments
- Adjust tungsten up to 3/4" (19mm) without removing tungsten from torch (MT100, MT400)
- Uses standard 10N Series cup and collet body, 10N "stubby" collet
- High temperature phenolic resin insulation

MT100 | GAS COOLED | COMPACT | 100 AMP

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX#	SPECIFICATIONS
FACE PLATE MOUNTED	1 Piece	12.5 ft. (3.8m)	MT112	MT112SF	4-1/16" (10.3cm) 5-3/4 oz (163gm)
	1 Piece	25 ft. (7.6m)	MT125	MT125SF	Machine Series Head Accessories (4 Series Collet)



100 Amps

MT400 | WATER COOLED | COMPACT | 400 AMP

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD #	SUPER-FLEX#	SPECIFICATIONS
FACE PLATE MOUNTED	3 Piece	12.5 ft. (3.8m)	MT412-1	MT412SF-1	4-1/16" (10.3cm) 6-1/4 oz (177gm)
	3 Piece	25 ft. (7.6m)	MT425-1	MT425SF-1	Machine Series Head Accessories (4 Series Collet)



400 Amps

*90 Degree power cable elbow available – 90EMT300

BARREL MACHINE TORCHES

FRONT OR BACK LOADING SERIES

The MT500 Series torch body is available in lengths of 7" (17.8cm) or 18" (45.7cm) with a 1-3/8" (35mm) O.D. The unique adjusting cap design of the MT torches provides 1/2" (12.7mm) tungsten adjustment while welding, and for ease of setup. A factory-installed 24 or 32 pitch rack is available on 18" (45.7cm) version only.

MT500-7 | WATER COOLED | 500 AMP

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD#	SUPER-FLEX#	SPECIFICATIONS
BARREL STYLE	3 Piece	12.5 ft. (3.8m)	MT512-7-1	MT512SF-7-1	7" (17.8cm) 12 oz (340gm)
	3 Piece	25 ft. (7.6m)	MT525-7-1	MT525SF-7-1	1-3/8" (35mm) O.D. Barrel Machine Series Head Accessories (4 Series Collet)



500 Amps

MT500-18 | WATER COOLED | 500 AMP

HEAD STYLE	CABLE	CABLE LENGTH	STANDARD#	SUPER-FLEX#	SPECIFICATIONS
BARREL STYLE	3 Piece	12.5 ft. (3.8m)	MT512-18-1	MT512SF-18-1	18" (45.7cm) 16 oz (454gm)
	3 Piece	25 ft. (7.6m)	MT525-18-1	MT525SF-18-1	1-3/8" (35mm) O.D. Barrel Machine Series Head Accessories (4 Series Collet)



500 Amps

HR-24 or HR-32 pitch rack available on request.

COLD WIRE FEEDER

Automate the addition of filler metal with the touch of a button using the WF-5 Cold Wire Feeder. This machine works independently to provide continuous filler metal for your TIG welding needs.

- Increases productivity
- Automates adding of filler metal
- All parameters can be duplicated for consistency
- Dual groove drive roll accepts multiple wire sizes
- Accepts standard wire spool sizes
- Eliminates filler rod stub loss
- Machine cover keeps filler metal clean and uncontaminated
- Makes fully-automated, or one-handed, TIG welding possible

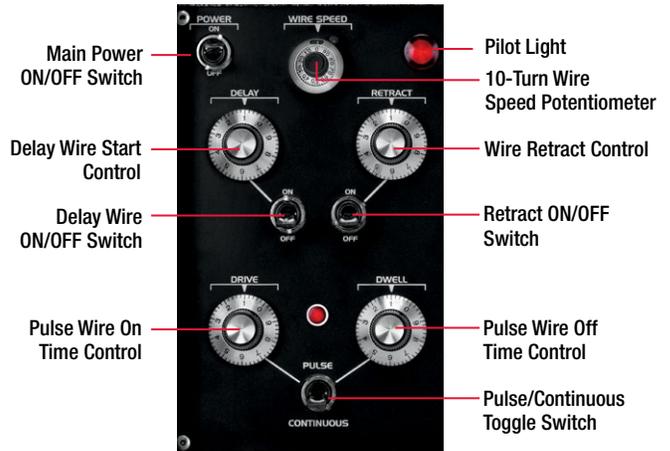
Note: For complete installation of a Cold Wire Feed system you need both the Cold Wire Feeder and a Wire Feed Application method, such as those listed below, in conjunction with your welding machine. The Cold Wire Feeder works independently and needs its own power source.



WF5 COLD WIRE FEED UNIT | CK EXCLUSIVE

APPLICATION	DRIVE ROLL	WIRE SIZE	ORDER #
HAND HELD/ MACHINE MOUNTED	30-45DR	.030" - .045" (.8mm-1.1mm)	WF5-035
	30-45DR	.030" - .045" (.8mm-1.1mm)	WF5-045
	40-35DR	.045" - 1/16" (1.1mm-1.6mm)	WF5-116

WF-5 FRONT PANEL CONTROLS



WIRE FEED APPLICATIONS



HANDHELD

HANDHELD
PENDANT

MACHINE
MOUNTED

WF-5 SPECIFICATIONS

Voltage 115V AC (220V AC 50 Hz.—Special Order)
 Phase Single Phase
 Frequency 50/60 Hz.
 Height 15" (38.1cm)
 Width 10" (25.4cm)
 Length 21" (53.3cm)
 Weight 54 lbs. (24.5kg)
 Filler Wire Spool Size 12" (30.5cm)
 Filler Wire Sizes023" (.5mm), .030" (.8mm),
 .035" (.9mm), .045" (1.1mm), 1/16" (1.6mm)
 Wire Feed Speed Range 0-700 in/min (0-1,775cm/min)
 Feed Time (pulsed mode) continuously variable
 Dwell Time (pulsed mode) continuously variable
 Delay Start Time continuously variable
 Wire Retract Time continuously variable

MICRO TORCH

The Micro Torch is the smallest most versatile TIG torch on the market! With three angular heads this torch allows multiple options for narrow applications where precision is needed and space is limited. This torch package comes complete with an AK-MR accessory kit and tungsten stick-out gauge.

MR70 | AIR COOLED 70AMP

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #
RIGID	1 Piece SUPER-FLEX	12.5 ft. (3.8m)	MR712SF
		25 ft. (7.6m)	MR725SF

MR140 | WATER COOLED 140AMP

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #
RIGID	3 Piece SUPER-FLEX	12.5 ft. (3.8m)	MR1412SF
		25 ft. (7.6m)	MR1425SF



Replaceable head!

SPECIFICATIONS:

Neck Diameter.....0.31" (7.9mm)
 Neck Length.....3.10" (78.7mm)
 Cup Diameter.....0.36" (9.1mm)
 Cup Length.....0.60" (15.2mm)

- 45°, 90° and 180° interchangeable heads
- .040" (1.0mm), 1/16" (1.6mm) and 3/32" (2.4mm) collets
- 2 Clear Pyrex cups
- 1 Alumina cup
- 3 Pieces of tungsten (3 different diameters)
- Tungsten installs easily with tungsten gauge and wrench

MICRO TORCH ACCESSORIES

Micro Torch Kit (Part # **AK-MR**) included in torch package



Replacement Parts Accessory Kit available

MR70 & MR140 PARTS

DESCRIPTION	ORDER #	DESCRIPTION	ORDER #	DESCRIPTION	ORDER #
Head 90°	MR90H	Collet .040" (1.0mm)	MR040C	Cup Alumina	MR4A
Head 45°	MR45H	Collet 1/16" (1.6mm)	MR116C	Cup Clear	MR4P
Head 180°	MR180H	Collet 3/32" (2.4mm)	MR332C	Handle Bushing	MRHB

TUNGSTEN | 2% CERATED

DIAMETER	DIAMETER	REPLACEMENT PART #	ACTUAL SIZE PHOTO	SPECIFICATIONS
.040"	1.0mm	T0409S20GC2		LENGTH 0.9" (22.9mm)
1/16"	1.6mm	T1169S20GC2		GRIND 20°
3/32"	2.4mm	T3329S20GC2		QTY. 5/pkg.



TUNGSTEN STICK-OUT

- Loosen knurled lock nut
- Turn threaded gauge rod to adjust gauge depth, markings are in 1/16" (1.6mm) increments
- Lock gauge by turning knurled lock nut firmly against the gauge body

Threaded gauge rod

Knurled lock nut

Gauge body

1/16" (1.6mm) markings



DELIVERING THE ULTIMATE IN TIG WELDING PERFORMANCE

ENGINEERED AND BUILT IN THE USA BY CK WORLDWIDE:
THE STANDARD IN TIG WELDING



CK Worldwide Premium TIG Torch

Available Options:

- Flex-Loc™
- Trim-Line™
- CK230



Textured Torch Handle

Designed for
maximum dexterity

Leather Hose Cover

Protects hoses from dirt, grime, and
other cable-fouling issues

Ball Strain Relief

Articulating strain relief for tight angles
and to prevent cable pinching

Super-Flex™ Cables

The ORIGINAL and most flexible nylon
over-braided cables on the market

Water and Gas Hose Quick Disconnects

Quickly adjust your torch setup, or switch
machines with these water and gas quick disconnects

**Exclusive Gas Saver™
Accessory Kit Included**

Removable Steady-Grip™ Ergonomic Handle

Adjustable "pistol-grip" for extreme
control and stability



MADE IN THE U.S.A.

USFL130

GAS COOLED
130 amp ACHF or DCSP @ 100%
2 Series Head Accessories

USFL130 | FLEX-LOC™

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #	SPECIFICATIONS
FLEX-LOC FL130 FL2L	SUPER -FLEX	12.5 ft. (3.8m)	USFL1312SF	8-5/8" (21.9cm) 5-1/4 oz (150gm)
		25 ft. (7.6m)	USFL1325SF	

Note: Measured from heatshield to back of handle, does not include cable or consumable/ accessory weight.



360° HEAD ROTATION

- KIT INCLUDES:
- Textured torch handle
 - Steady-Grip™ ergonomic handle
 - Ball strain relief
 - Super-Flex™ cable
 - Leather hose cover
 - ULT-FL accessory kit complete with Gas Saver™ parts

USFL150

GAS COOLED
150 amp ACHF or DCSP @ 100%
3 Series Head Accessories

USFL150 | FLEX-LOC™

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #	SPECIFICATIONS
FLEX-LOC FL150 FL3L	SUPER -FLEX	12.5 ft. (3.8m)	USFL1512SF	9-1/8" (23.2cm) 6-1/3 oz (180gm)
		25 ft. (7.6m)	USFL1525SF	

Note: Measured from heatshield to back of handle, does not include cable or consumable/ accessory weight.



360° HEAD ROTATION

- KIT INCLUDES:
- Textured torch handle
 - Steady-Grip™ ergonomic handle
 - Ball strain relief
 - Super-Flex™ cable
 - Leather hose cover
 - ULT-FL accessory kit complete with Gas Saver™ parts

USTL210

GAS COOLED
200 amp ACHF or DCSP @ 100%
3 Series Head Accessories

USTL210 | TRIM-LINE™

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #	SPECIFICATIONS
RIGID	SUPER -FLEX	12.5 ft. (3.8m)	USTL2112SF	9-3/8" (23.8cm) 5-1/4 oz (150gm)
		25 ft. (7.6m)	USTL2125SF	
FLEX	SUPER -FLEX	12.5 ft. (3.8m)	USTL2112SF FX	Note: Measured from heat-shield to back of handle, does not include cable or consumable/accessory weight.
		25 ft. (7.6m)	USTL2125SF FX	



- KIT INCLUDES:
- Textured torch handle
 - Steady-Grip™ ergonomic handle
 - Ball strain relief
 - Super-Flex™ cable
 - Leather hose cover
 - ULT-3 accessory kit complete with Gas Saver™ parts



230
AMP

USFL230

WATER COOLED
230 amp ACHF or DCSP @ 100%
2 Series Head Accessories

USFL230 | FLEX-LOC™

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #	SPECIFICATIONS
FLEX-LOC FL230 FL2L	SUPER -FLEX	12.5 ft. (3.8m)	USFL2312SF	8-5/8" (21.9cm) 4-3/4 oz (135gm)
		25 ft. (7.6m)	USFL2325SF	18" longer argon & water lines

Note: Measured from heatshield to back of handle, does not include cable or consumable/ accessory weight.



- KIT INCLUDES:**
- Textured torch handle
 - Steady-Grip™ ergonomic handle
 - Ball strain relief
 - Super-Flex™ cables
 - Leather hose cover
 - Gas and water hose quick disconnects
 - ULT-FL accessory kit complete with Gas Saver™ parts

250
AMP

USFL250

WATER COOLED
250 amp ACHF
or DCSP @ 100%
3 Series Head Accessories

USFL250 | FLEX-LOC™

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #	SPECIFICATIONS
FLEX-LOC FL250 FL3L	SUPER -FLEX	12.5 ft. (3.8m)	USFL2512SF	9-1/8" (23.2cm) 5-2/3 oz (160gm)
		25 ft. (7.6m)	USFL2525SF	18" longer argon & water lines

Note: Measured from heatshield to back of handle, does not include cable or consumable/ accessory weight.



- KIT INCLUDES:**
- Textured torch handle
 - Steady-Grip™ ergonomic handle
 - Ball strain relief
 - Super-Flex™ cables
 - Leather hose cover
 - Gas and water hose quick disconnects
 - ULT-FL accessory kit complete with Gas Saver™ parts

MADE IN THE U.S.A.



300
AMP

US230

WATER COOLED

300 amp ACHF
or DCSP @ 100%

2 Series Head Accessories



US230 | HEAVY DUTY

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #	SPECIFICATIONS
RIGID	SUPER-FLEX	12.5 ft. (3.8m)	US2312SF	9-3/8" (23.8cm) 4-1/4 oz (120gm) 18" longer argon & water lines
		25 ft. (7.6m)	US2325SF	
FLEX	SUPER-FLEX	12.5 ft. (3.8m)	US2312SF FX	
		25 ft. (7.6m)	US2325SF FX	

Note: Measured from heatshield to back of handle, does not include cable or consumable/ accessory weight.

KIT INCLUDES:

- Textured torch handle
- Steady-Grip™ ergonomic handle
- Ball strain relief
- Super-Flex™ cables
- Leather hose cover
- Gas and water hose quick disconnects
- ULT-2 accessory kit complete with Gas Saver™ parts

USTL300

WATER COOLED

350 amp ACHF
or DCSP @ 100%

3 Series Head Accessories



USTL300 | TRIM-LINE™

HEAD STYLE	CABLE	CABLE LENGTH	SUPER-FLEX #	SPECIFICATIONS
RIGID	SUPER-FLEX	12.5 ft. (3.8m)	USTL312SF	9-3/8" (23.8cm) 5-1/2 oz (155gm) 18" longer argon & water lines
		25 ft. (7.6m)	USTL325SF	
FLEX	SUPER-FLEX	12.5 ft. (3.8m)	USTL312SF FX	
		25 ft. (7.6m)	USTL325SF FX	

Note: Measured from heatshield to back of handle, does not include cable or consumable/ accessory weight.

KIT INCLUDES:

- Textured torch handle
- Steady-Grip™ ergonomic handle
- Ball strain relief
- Super-Flex™ cables
- Leather hose cover
- Gas and water hose quick disconnects
- ULT-3 accessory kit complete with Gas Saver™ parts

350
AMP

GAS HOSE CK EXCLUSIVE

Reinforced clear vinyl 1/4" (6.4mm) inside diameter hose can be ordered in multiple lengths from 12-1/2' (3.8m) to 100' (30.5m) with fittings and as a bulk 300' (91.4m) bulk reel without fittings.

REINFORCED GAS HOSE | 1/4" (6.4mm)

FITTINGS	LENGTH*	INSIDE DIAMETER	ORDER#
5/8"-18RH MALE BOTH ENDS	12-1/2 ft. (3.8m)	1/4" (6.4mm)	ARH-12
	25 ft. (7.6m)	1/4" (6.4mm)	ARH-25
	50 ft. (15.2m)	1/4" (6.4mm)	ARH-50
	75 ft. (22.9m)	1/4" (6.4mm)	ARH-75
	100 ft. (30.5m)	1/4" (6.4mm)	ARH-100
BULK NO FITTINGS	300 ft. (91.4m)	1/4" (6.4mm)	ARH-BULK*

*300' (91.4m) reels only, NO EXCEPTIONS



REGULATORS

Our Regulator/Flowmeter combinations are specially designed for TIG welding applications. Unique design and construction features make these units equally suited for applications from the industrial job site to the laboratory.

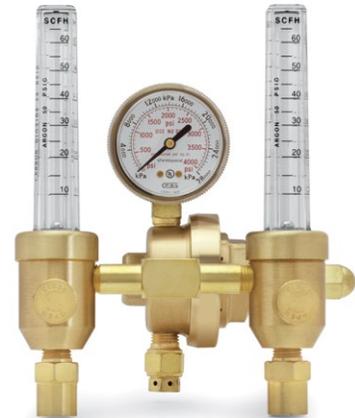
191AR-60 | SINGLE

- Regulator/flowmeter combination in one compact unit
- Ideal for applications where dependability is needed
- Regulator is preset at 50PSIG
- Machined brass body and housing cap
- Cover tube contains overpressure protection



196AR-60 | DOUBLE

- Monitors two separate gas flow settings at the same time
- Dual flowmeter allows for purging operations
- Regulator is preset at 50PSIG
- Single-stage construction
- Body machined from class "A" brass



NEW! MAGNETIC TORCH HOLDER

MTH-15 | HOLDER

Keep your torch and consumables safe from drops or falls!

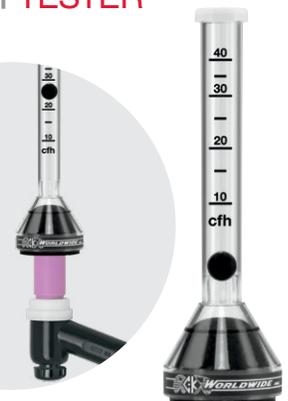
- Attaches vertically or horizontally to fit your needs
- Magnetic base for easy attachment and strong hold
- Protects your torch and consumables



GAS FLOW TESTER

CK-GFT | TESTER

Use the CK-GFT to quickly and easily check your flow rate AT THE TORCH NOZZLE!



SUPER CUPS

THE RIGHT NOZZLE FOR THE TOUGHEST TIG WELDING APPLICATIONS

Super Cups withstand high-amperage and high-reflective heat applications while minimizing cracking problems related to thermal shock.

- Lasts longer in high-heat applications than alumina cups
- Reduce downtime
- Reduce replacement part costs
- Reduce thermal conductivity by approximately 40%



Super Cups minimize cracking problems related to thermal shock. Save time and money while reducing thermal conductivity by 40%.

Available to fit all 2 and 3 Series torches.

SERIES 2 SUPER CUPS TORCH MODELS 9, 20



STANDARD		GAS LENS		LARGE DIAMETER	
2S4	(13N08SC)	2SG4	(53N58SC)	3SG6LD	(57N75SC)
2S5	(13N09SC)	2SG5	(53N59SC)	3SG8LD	(57N74SC)
2S6	(13N10SC)	2SG6	(53N60SC)	3SG10LD	(53N88SC)
2S7	(13N11SC)	2SG7	(53N61SC)	3SG12LD	(53N87SC)
2S8	(13N12SC)	2SG8	(53N61SSC)		
2S10	(13N13SC)				

SERIES 3 SUPER CUPS TORCH MODELS 17, 18, 26



STANDARD		GAS LENS		LARGE DIAMETER	
3S4	(10N50SC)	3SG4	(54N18SC)	3SG6LD	(57N75SC)
3S5	(10N49SC)	3SG5	(54N17SC)	3SG8LD	(57N74SC)
3S6	(10N48SC)	3SG6	(54N16SC)	3SG10LD	(53N88SC)
3S7	(10N47SC)	3SG7	(54N15SC)	3SG12LD	(53N87SC)
3S8	(10N46SC)	3SG8	(54N14SC)		
3S10	(10N45SC)				
3S12	(10N44SC)				

ELECTRONIC WELDING HELMET

- 4 Sensors for out of position welding
- High quality LCD and multilayer optical interference filter provide clear view and permanent UV/IR protection up to DIN 15.
- Power supply by solar cells and Lithium batteries (replaceable).
- Digital low battery warning indicator.
- Mask made of high-impact resistant special nylon.
- Ample mask space, especially for ears and neck.
- Adapter for plastic magnifying lens.
- CE EN 379, ANSI Z87.1, CSA Z94.3
- Standard 4-1/2" x 5-1/4" (11.4cm x 13.3cm) cover lens.

SPECIFICATIONS

CARTRIDGE SIZE	4-1/2" x 5-1/4" x 3/8"
	114mm x 133mm x 9.5mm
VIEWING SIZE	3.94" x 2.36"
	100mm x 60mm
LIGHT STATE SHADE	4
DARK STATE SHADE	9 – 13
SHADE CONTROL	Internal and Digital
GRINDING FUNCTION	Digital
SENSITIVITY CONTROL	Adjustable
SWITCHING TIME	0.08 milliseconds
ARC SENSORS	4
WEIGHT	1.21 pounds
	550 grams
WARRANTY	2 years

ORDER # CK-ADWH



REMOTE AMPERAGE CONTROL *CK EXCLUSIVE*

- Available in either Steady-Grip™, rotary, linear slide, or spring-loaded wheel configurations
- Fits most makes and models of TIG power supplies
- Controls contactor on / off, gas solenoids and full range current output
- Available with a Velcro strap or built into the torch handle

CONTACT CK FOR ORDER NUMBERS



STEADY-GRIP™
Velcro Straps



ROTARY

Velcro Straps



LINEAR

Built-In – Handle
(For CK torches)



WHEEL

Velcro Straps

SAFE-LOC CONNECTORS *CK EXCLUSIVE*

- Efficient and safe way to extend power cables
- All electrical connections are insulated with a rugged poly-resin clamshell
- Tweco, Dinse or Cam-Loc twist lock fittings are available
- Available for gas-cooled or water-cooled torches
- Eliminate using a hazardous “stinger” electrode holder to extend cables
- Safely extend cables up to an overall length of 100' (30.48m)



CONNECTORS | WATER-COOLED

TORCHES	DESCRIPTION	PART #
CK18, CK20	Tweco for water-cooled cables	SLWHAT-T
	Dinse 35 for water-cooled cables	SLWHAT-35

CONNECTORS | GAS-COOLED

TORCHES	DESCRIPTION	PART #
CK9, CK17	Tweco for water-cooled cables	SL-2
	Dinse 35 for water-cooled cables	SL2-35
CK150, TL210	Tweco for water-cooled cables	SL-5
	Dinse 35 for water-cooled cables	SL5-35
CK26, TL26	Tweco for water-cooled cables	SL-8
	Dinse 35 for water-cooled cables	SL8-35



ORDER # SL-HB
Clamshell Only

LEATHER VELCRO HOSE COVERS *CK EXCLUSIVE*

These durable leather protective hose covers are abrasion, heat, flame, UV and oil resistant.

- Easy opening and closing
- Remains flexible in all climates
- Lightweight, supple
- No more damaged zippers or snaps



LEATHER HOSE COVERS

TORCHES	LENGTH*	WIDTH	INSIDE DIAMETER	ORDER#
CK9, CK17, CK20	10 ft. (3.0m)	3-3/4" (95mm)	1" (25mm)	212HCLV
	22 ft. (7.0m)	3-3/4" (95mm)	1" (25mm)	225HCLV
CK18, CK26	10 ft. (3.0m)	4-1/2" (114mm)	1-1/4" (31mm)	312HCLV
	22 ft. (7.0m)	4-1/2" (114mm)	1-1/4" (31mm)	325HCLV

SUPER-FLEX™ CABLES

CK EXCLUSIVE

Innovative design replaces heavy, stiff cables to increase range of motion, reducing fatigue and improving productivity.

- Lightweight silicon rubber with durable nylon overbraid protection
- Available for all gas-cooled or water-cooled torches
- Stays flexible in harsh weather conditions



WEDGE COLLET **CK EXCLUSIVE**

LASTS UP TO 10 TIMES LONGER THAN STANDARD SPLIT COLLETS

- Improves arc starts and arc stability
- Requires less pressure from the backcap, improving thread life on torch head
- Tungsten is in direct contact with collet body creating less resistance heating
- Runs cooler, minimizing down time replacing collets
- Eliminates twisting and deformation of collet
- Fits any standard collet body or gas lens

Precision angled end cut gives "wedge" action for firm hold

Slots weaken the collet allowing it to twist, deform or jam



WEDGE COLLETS

USE ON TORCHES	TUNGSTEN SIZE	ORDER#
CK9, CK20 (2 Series)	.040" (1.0mm)	2C040GS
	1/16" (1.6mm)	2C116GS
	3/32" (2.4mm)	2C332GS
	1/8" (3.2mm)	2C418GS

USE ON TORCHES	TUNGSTEN SIZE	ORDER#
CK17, CK18, CK26 (3 Series)	.040" (1.0mm)	3C040GS
	1/16" (1.6mm)	3C116GS
	3/32" (2.4mm)	3C332GS
	1/8" (3.2mm)	3C418GS
	5/32" (4.0mm)	3C532GS



GAS SAVER™ KITS **CK EXCLUSIVE**

Use these conversion kits and save up to 40% of shield gas consumption plus save money on replacement parts.

- Provides better gas coverage versus standard collet bodies
- Tungsten stick-out can be up to 6 times the electrode diameter
- Clear Pyrex or Alumina push on nozzles available
- Improves visibility
- Less expensive replacement parts than standard gas lenses
- Fits most standard silicone rubber insulated torch bodies
- Replaceable screen adapter

2 SERIES | STD. GAS SAVER KITS

TORCHES	TUNGSTEN	CUP TYPE	ORDER #
CK9, CK20 (2 SERIES)	1/16" (1.6mm)	ALUMINA	D2GS116
	3/32" (2.4mm)	ALUMINA	D2GS332
	1/8" (3.2mm)	ALUMINA	D2GS418
	1/16" (1.6mm)	PYREX	D2GS116-P
	3/32" (2.4mm)	PYREX	D2GS332-P
	1/8" (3.2mm)	PYREX	D2GS418-P

3 SERIES | STD. GAS SAVER KITS

TORCHES	TUNGSTEN	CUP TYPE	ORDER #
CK17, CK18, CK26 (3 SERIES)	1/16" (1.6mm)	ALUMINA	D3GS116
	3/32" (2.4mm)	ALUMINA	D3GS332
	1/8" (3.2mm)	ALUMINA	D3GS418
	1/16" (1.6mm)	PYREX	D3GS116-P
	3/32" (2.4mm)	PYREX	D3GS332-P
	1/8" (3.2mm)	PYREX	D3GS418-P

TUNGSTEN RETAIL PACKS

Oxides used are primarily zirconium, thorium, lanthanum or cerium. Additions are usually 1% – 4%. These oxides greatly improve arc initiation, especially when direct current (DC) welding is employed. Thorium oxide (thoria) has been used for many years, having been found effective in terms of long life and thermal efficiency. Zirconium oxide (zirconia) has been commonly used for alternating (AC) TIG welding, normally for welding aluminum.

ISO 6848 COLOR CHART	SIZE		PART #	
	INCHES	MILLIMETERS	10 PIECE	3 PIECE P.O.P.
2% Thoriated Red	.020 x 7"	0.5 x 175mm	T0207GT2	
	.040 x 7"	1.0 x 175mm	T0407GT2	
	1/16 x 7"	1.6 x 175mm	T1167GT2	T1167GT2-3
	3/32 x 7"	2.4 x 175mm	T3327GT2	T3327GT2-3
	1/8 x 7"	3.2 x 175mm	T187GT2	T187GT2-3
AWS A5.12 EWTh-2 ISO 6848 WT20	5/32 x 7"	4.0 x 175mm	T5327GT2	
	.020 x 7"	0.5 x 175mm	T0207GZ	
	.040 x 7"	1.0 x 175mm	T0407GZ	
	1/16 x 7"	1.6 x 175mm	T1167GZ	T1167GZ-3
	3/32 x 7"	2.4 x 175mm	T3327GZ	T3327GZ-3
AWS A5.12 EWZr-8 ISO 6848 WZ8	1/8 x 7"	3.2 x 175mm	T187GZ	T187GZ-3
	5/32 x 7"	4.0 x 175mm	T5327GZ	
	.020 x 7"	0.5 x 175mm	T0207GL	
	.040 x 7"	1.0 x 175mm	T0407GL	
	1/16 x 7"	1.6 x 175mm	T1167GL	T1167GL-3
1.5% Lanthanated Gold	3/32 x 7"	2.4 x 175mm	T3327GL	T3327GL-3
	1/8 x 7"	3.2 x 175mm	T187GL	T187GL-3
	5/32 x 7"	4.0 x 175mm	T5327GL	
	.020 x 7"	0.5 x 175mm	T0207GC2	
	.040 x 7"	1.0 x 175mm	T0407GC2	
2% Ceriated Gray	1/16 x 7"	1.6 x 175mm	T1167GC2	T1167GC2-3
	3/32 x 7"	2.4 x 175mm	T3327GC2	T3327GC2-3
	1/8 x 7"	3.2 x 175mm	T187GC2	T187GC2-3
	5/32 x 7"	4.0 x 175mm	T5327GC2	
	.020 x 7"	0.5 x 175mm	T0207G	
Pure Green	.040 x 7"	1.0 x 175mm	T0407G	
	1/16 x 7"	1.6 x 175mm	T1167G	T1167G-3
	3/32 x 7"	2.4 x 175mm	T3327G	T3327G-3
	1/8 x 7"	3.2 x 175mm	T187G	T187G-3
	5/32 x 7"	4.0 x 175mm	T5327G	
AWS A5.12 EWP ISO 6848 WP	.020 x 7"	0.5 x 175mm	T0207GL2	
	.040 x 7"	1.0 x 175mm	T0407GL2	
	1/16 x 7"	1.6 x 175mm	T1167GL2	T1167GL2-3
	3/32 x 7"	2.4 x 175mm	T3327GL2	T3327GL2-3
	1/8 x 7"	3.2 x 175mm	T187GL2	T187GL2-3
2% Lanthanated Blue	5/32 x 7"	4.0 x 175mm	T5327GL2	
	.020 x 7"	0.5 x 175mm	T0207GTM	
	.040 x 7"	1.0 x 175mm	T0407GTM	
	1/16 x 7"	1.6 x 175mm	T1167GTM	T1167GTM-3
	3/32 x 7"	2.4 x 175mm	T3327GTM	T3327GTM-3
AWS A5.12 EWG ISO 6848	1/8 x 7"	3.2 x 175mm	T187GTM	T187GTM-3
	5/32 x 7"	4.0 x 175mm	T5327GTM	

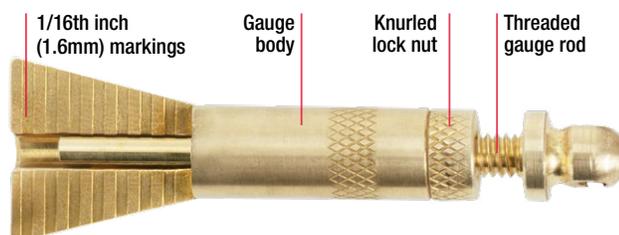
TIG welding electrodes usually contain small quantities of metallic oxides, which can offer the following benefits:

- Facilitate arc starting
- Increase arc stability
- Improve current carrying capacity of the electrode
- Reduce the risk of weld contamination
- Increase electrode life



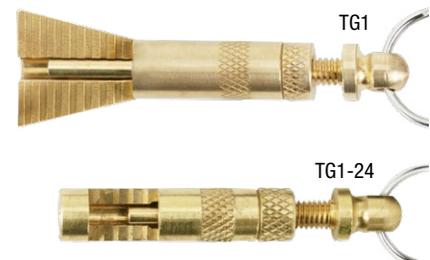
TUNGSTEN STICK OUT GAUGE

- Loosen knurled lock nut
- Turn threaded gauge rod to adjust gauge depth (markings are in 1/16th inch increments)
- Lock gauge by turning knurled lock nut firmly against the gauge body



STICK-OUT GAUGE

DESCRIPTION	ORDER #	DETAILS
Standard Gauge	TG1	Includes convenient key ring
Small Tungsten Gauge	TG1-24	



TUNGSTEN ELECTRODE GRINDER

The Turbo-Sharp X enclosed electrode grinder minimizes dust exposure to both the user and the environment while delivering consistent tip geometry.

- Standard head for diameters:
 .040" (1.0mm) 1/16" (1.6mm)
 3/32" (2.4mm) 1/8" (3.2mm)
- Angles adjustable from 20°– 60°
- Eliminate grinding wheel contamination

TURBO-SHARP® X

SPECIAL FEATURES:

- **Multi-functional cover**
 Through a slot in the cover one can flatten the electrode to prepare a truncated cone.
- **Setting the angle**
 Angles adjustable from 20° – 60°
- **Grinding disc**
 Both sides coated with diamond-powder, giving double wheel life.
- **Unbelievable result**
 TURBO-SHARP® X allows exact repetition of longitudinal grinding.
- **Ergonomic**
 TURBO-SHARP® X is optimal with



New improved
TURBO-SHARP features
 adjustable head! – GRINDING
 DISCS LAST 3 x LONGER!!

SPECIFICATIONS

VOLTAGE	120V AC
SINGLE PHASE	60 Hz
POWER	710 W
AMPS	6.45
NO LOAD SPEED	34,000 RPM
WEIGHT	4.1 pounds
	1,860 grams
SHIP WEIGHT	10.1 pounds
	4,581 grams
WARRANTY	2 years

230V available, contact us for more information



CONSISTENT RESULTS:
 Stepless grinding angles 20° – 60°



Both sides coated
 with diamond-powder

TURBO-SHARP® X can be equipped
 with an optional grinder head (**TS3-HR**).

Using the red head, you can grind
 electrodes of diameter:
 1/8" (3.2mm), 5/32" (4.0mm),
 3/16" (4.8mm) and 1/4" (6.4mm)



Turbo-Sharp® X is a registered trademark of JAS.

SHORT TUNGSTEN KIT

FOR USE WITH TS3-HR GRINDER HEAD ONLY

HOLDS SHORTER LENGTH TUNGSTEN

Grind tungstens as short as 3/4" (1.9cm)



INCLUDES:
 .040" (1.0mm),
 1/16" (1.6mm) and
 3/32" (2.4mm) collets

TURBO-SHARP X | ORDERING INFO

DESCRIPTION	ORDER #
120 V GRINDER (Includes TS3-HB)	TS10
230 V GRINDER (Includes TS3-HB)	TS10-230
REPLACEMENT WHEEL	TS3-W
GRINDER HEAD .040"–1/8" (1.0mm - 3.2mm)	TS3-HB
GRINDER HEAD 1/8" (3.2mm), 5/32" (4.0mm), 3/16" (4.8mm), 1/4" (6.4mm)	TS3-HR
SHORT TUNGSTEN KIT (TS3-HR required)	TS3-STK

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-02 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.



CONNECT WITH US ON:



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