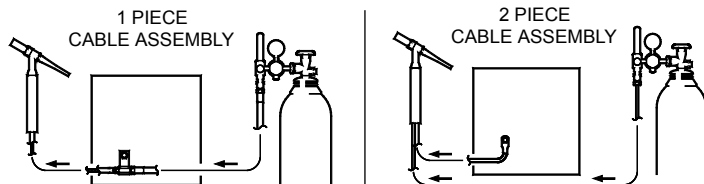


WARRANTY: CK Worldwide, Inc. warrants products manufactured by CK Worldwide, Inc. to be free of defects in materials and workmanship. CK Worldwide, Inc. limits this warranty to replacement of the product or parts thereof and excludes liability for injury, property damage or economic loss attributable 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.

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.

CONNECTION DIAGRAM:

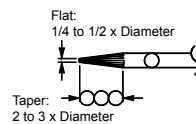


INFORMATION CHART:

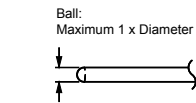
Electrode Diameter in inches (mm)	Cup Size	WELDING CURRENT (AMPS) - TUNGSTEN TYPE				ARGON FLOW - FERROUS METALS		ARGON FLOW - ALUMINUM	
		AC Pure	AC Thoriated	DCSP Pure	DCSP Thoriated	Standard Body (Liters)	Gas Lens Body (Liters)	Standard Body (Liters)	Gas Lens Body (Liters)
.020 (0.50)	4 or 5	5 - 15	5 - 20	5 - 15	5 - 20	5-8 (3-4)	5-8 (3-4)	5-8 (3-4)	5-8 (3-4)
.040 (1.00)	4 or 5	10 - 60	15-80	15 - 70	20 - 80	5-10 (3-5)	5-8 (3-4)	5-12 (3-6)	5-10 (3-5)
1/16 (1.60)	4, 5 or 6	50 - 100	70 - 150	70 - 130	80 - 150	7-12 (4-6)	5-10 (3-5)	8-15 (4-7)	7-12 (4-6)
3/32 (2.40)	6, 7 or 8	100 - 160	140 - 235	150 - 220	150 - 250	10-15 (5-7)	8-10 (4-5)	10-20 (5-10)	10-15 (5-7)
1/8 (3.20)	7, 8 or 10	150 - 210	220 - 325	220 - 330	240 - 350	10-18 (5-9)	8-12 (4-6)	12-25 (6-12)	10-20 (5-10)
5/32 (4.00)	8 or 10	200 - 275	300 - 425	375 - 475	400 - 500	15-25 (7-12)	10-15 (5-7)	15-30 (7-14)	12-25 (6-12)
3/16 (4.80)	8 or 10	250 - 350	400 - 525	475-800	475-800	20-35 (10-17)	12-25 (6-12)	25-40 (12-19)	15-30 (7-14)
1/4 (6.40)	10	325 - 700	500 - 700	750 - 1000	700 - 1100	25-50 (12-24)	20-35 (10-17)	30-55 (14-26)	25-45 (12-21)

TUNGSTEN PREPARATION:

END PREPARATION: DCSP (EN)
General Purpose:

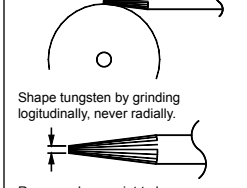


ACHF
General Purpose:

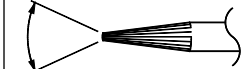


Ball tip by arcing on clean metal at low current DCRP (EP) then slowly increase current to form the desired ball diameter.

GRINDING PREPARATION:
Use a 60 Grit or finer aluminum oxide wheel

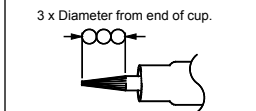


Remove sharp point to leave a truncated point with a flat spot. Diameter of flat spot determines amperage.

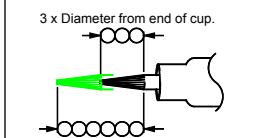


The included angle determines weld bead shape and size. Generally, as the included angle increases, penetration increases and bead width decreases.

EXTENSION INSTRUCTION: STANDARD PARTS
General Purpose:



GAS LENS PARTS
General Purpose:



Maximum extension: 6 x Diameter from end of cup. (In draft - free areas)

CAUTION:

Personal harm will result from touching the hot parts of a TIG torch without insulative protection, or from looking directly or indirectly at an arc or reflected arc. At no time should bare skin be exposed to a welding arc.



TIG TORCH MANUAL



TL210 & TL210V RIGID

TECHNICAL INFORMATION

RATING @ 100% DUTY CYCLE: 200 AMP ACHF OR DCSP
COOLING METHOD: GAS COOLED

ACCESSORY ITEMS REQUIRED FOR COMPLETE INSTALLATION:

HEAD ACCESSORIES: 3 SERIES HEAD ACCESSORIES
POWER CABLE ADAPTOR: 21 HPCA (ONE-PIECE POWER CABLE ONLY)

MODEL SELECTOR - TORCH PACKAGES

HEAD STYLE	CABLE	LENGTH	STANDARD #	SUPERFLEX #
Rigid Head w/o Valve	2 Piece	12½ft (3.8m)	TL2112N RG	TL2112NSF RG
		25ft (7.6m)	TL2125N RG	TL2125NSF RG
Rigid Head w/o Valve	1 Piece	12½ft (3.8m)	TL2112H RG	TL2112HSF RG
		25ft (7.6m)	TL2125H RG	TL2125HSF RG
Rigid Head with Valve	2 Piece	12½ft (3.8m)	TL2112VN RG	TL2112VNSF RG
		25ft (7.6m)	TL2125VN RG	TL2125VNSF RG
Rigid Head with Valve	1 Piece	12½ft (3.8m)	TL2112VH RG	TL2112VHSF RG
		25ft (7.6m)	TL2125VH RG	TL2125VHSF RG

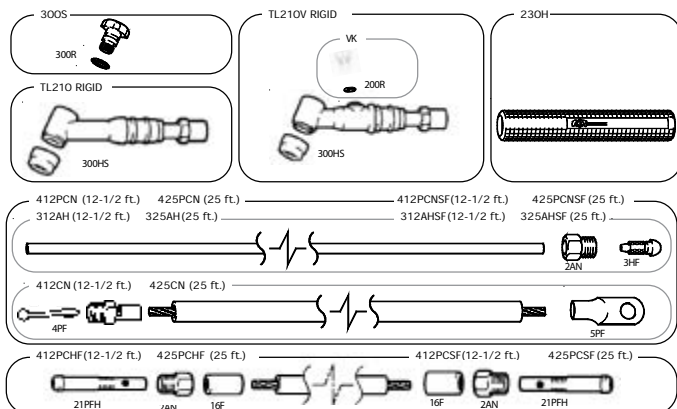
IMPORTANT !!
READ AND UNDERSTAND THE INFORMATION CONTAINED IN THIS MANUAL BEFORE OPERATING THE EQUIPMENT !

CK WORLDWIDE INC.
3501 "C" ST. N.E.
AUBURN, WA. 98002
USA

PHONE: (253) 854-5820
PHONE: (800) 426-0877
FAX: (253) 939-1746

www.ckworldwide.com
ck@ckworldwide.com

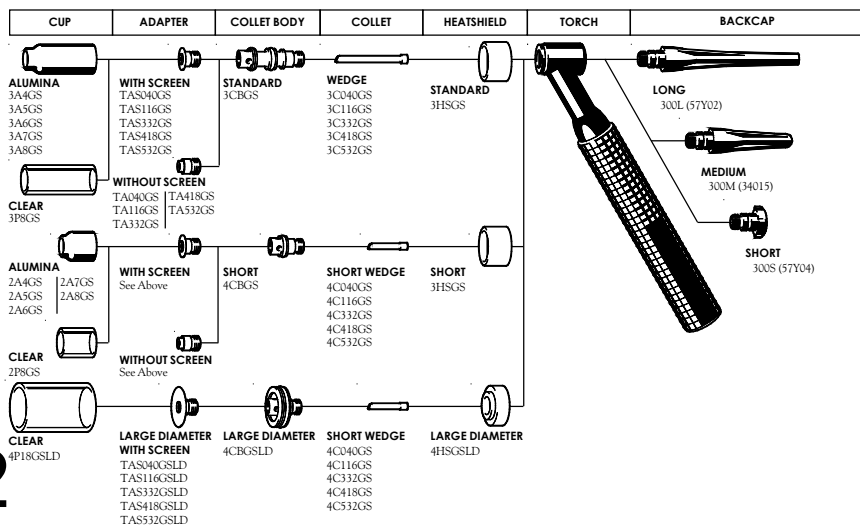
PARTS:



PARTS LIST:

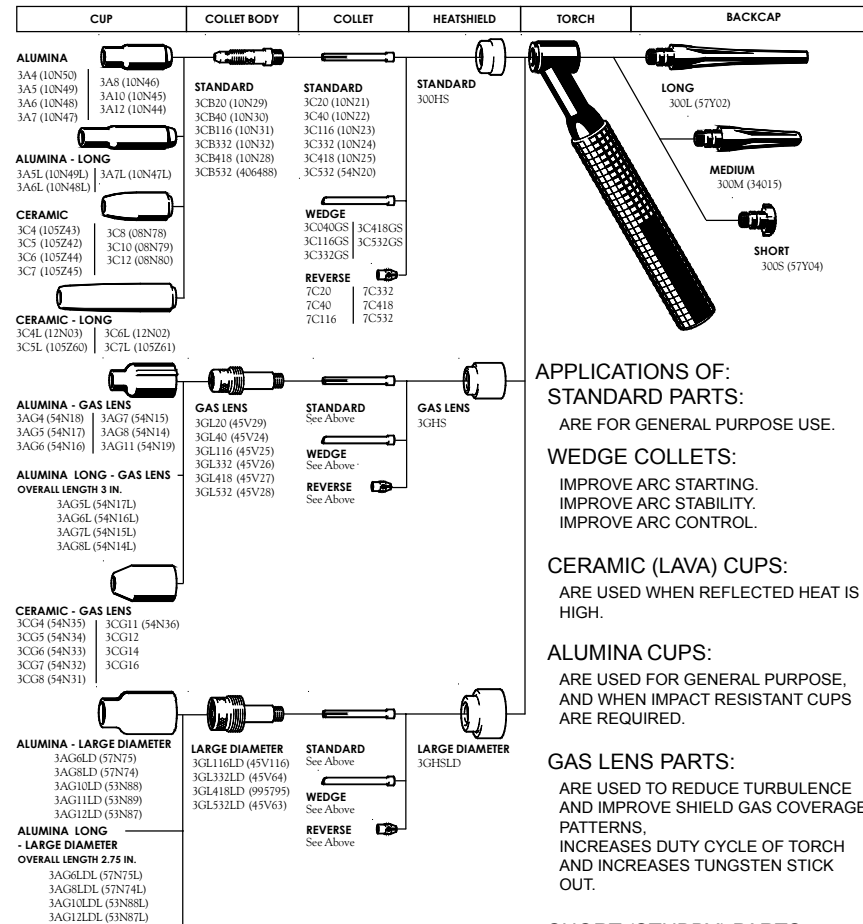
PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
TL210 RIGID	Torch Body, RIGID, 70 degree, 200 Amp	2 A N	Gas Nut
TL210V RIGID	Torch Body with Valve, RIGID, 70 degree, 200 Amp	3 H F	Hose Fitting
VK	Gas Valve, Top Mounted	5 P F	Power Cable Fitting
300H	Handle	2 6 P N	Power Cable Nut
412CN	Power Cable with Fittings, 12-1/2 ft.	1 6 F	Power Fitting
425CN	Power Cable with Fittings, 25 ft.	2 1 P F H	Power Cable Fitting
412PCHF	Power Cable Assembly, Hi-Flex 1 Piece, 12-1/2 ft.		
412PCSF	Power Cable Assembly, Super Flex 1 Piece, 12-1/2 ft.		
425PCHF	Power Cable Assembly, Hi-Flex 1 Piece, 25 ft.		
425PCSF	Power Cable Assembly, Super Flex 1 Piece, 25 ft.		
412PCN	Power Cable Assembly, Hi-Performance 2 Piece, 12-1/2 ft.		
412PCNSF	Power Cable Assembly, Super Flex 2 Piece, 12-1/2 ft.		
425PCN	Power Cable Assembly, Hi-Performance 2 Piece, 25 ft.		
425PCNSF	Power Cable Assembly, Super Flex 2 Piece, 25 ft.		
200R	O-Ring		
312AH	Gas Hose with Fittings, 12-1/2 ft.		
312AHSF	Gas Hose with Fittings, 12-1/2 ft., Super Flex		
325AH	Gas Hose with Fittings, 25 ft.		
325AHSF	Gas Hose with Fittings, 25 ft., Super Flex		
300HS	Heat Shield, Standard		
300R	O-Ring		
300S	Backcap, Short		

3 SERIES HEAD ACCESSORIES GAS SAVER



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3 SERIES HEAD ACCESSORIES



APPLICATIONS OF:
STANDARD PARTS:
ARE FOR GENERAL PURPOSE USE.
WEDGE COLLETS:
IMPROVE ARC STARTING.
IMPROVE ARC STABILITY.
IMPROVE ARC CONTROL.

CERAMIC (LAVA) CUPS:
ARE USED WHEN REFLECTED HEAT IS HIGH.

ALUMINA CUPS:
ARE USED FOR GENERAL PURPOSE,
AND WHEN IMPACT RESISTANT CUPS
ARE REQUIRED.

GAS LENS PARTS:
ARE USED TO REDUCE TURBULENCE
AND IMPROVE SHIELD GAS COVERAGE
PATTERNS,
INCREASES DUTY CYCLE OF TORCH
AND INCREASES TUNGSTEN STICK
OUT.

SHORT (STUBBY) PARTS:
ARE USED TO SHORTEN THE OVERALL
LENGTH OF THE TORCH HEAD.
REDUCES DUTY CYCLE OF TORCH

GAS SAVER® PARTS:
ARE USED TO SAVE UP TO 40% ON GAS
CONSUMPTION.
ARE USED TO SAVE UP TO 60% ON
CONSUMABLE PARTS.
ARE USED TO CLEARLY SEE THE WELD
PUDDLE.
ARE USED TO ACHIEVE GAS LENS

TUNGSTEN ELECTRODE CONVERSION CHART

Size Suffix	Inches	Millimeters
020	.020"	.5mm
040	.040"	1.0mm
116	1/16"	1.6mm
332	3/32"	2.4mm
418	1/8"	3.2mm
532	5/32"	4.0mm

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