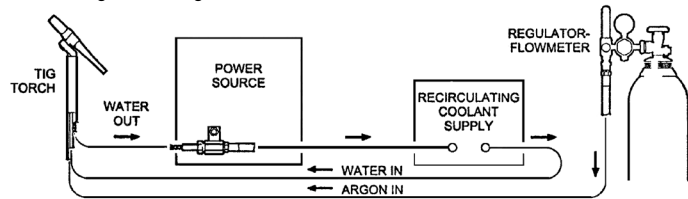


CK WORLDWIDE INC.

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:

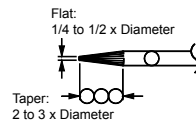


INFORMATION CHART:

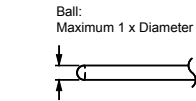
Electrode Diameter in inches (mm)	Cup Size	WELDING CURRENT (AMPS) - TUNGSTEN TYPE				ARGON FLOW - FERROUS METALS		ARGON FLOW - ALUMINUM	
		AC Pure	AC Thoriated	DCSP Pure	DCSP Thoriated	Standard Body (Liters)	Gas Lens Body (Liters)	Standard Body (Liters)	Gas Lens Body (Liters)
.020 (0.50)	4 or 5	5 - 15	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:

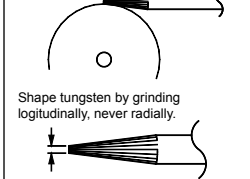


ACHF
General Purpose:



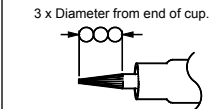
Ball tip by arcing on clean metal at low current DCRP (EP) then slowly increase current to form the desired ball diameter.

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

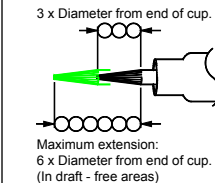


Remove sharp point to leave a truncated point with a flat spot. Diameter of flat spot determines amperage.
The included angle determines weld bead shape and size. Generally, as the included angle increases, penetration increases and bead width decreases.

EXTENSION INSTRUCTION: STANDARD PARTS
General Purpose:



GAS LENS PARTS
General Purpose:



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



CK230 & CK230V RIGID

TECHNICAL INFORMATION

RATING @ 100% DUTY CYCLE: 300 AMP ACHF OR DCSP
COOLING METHOD: WATER COOLED

ACCESSORY ITEMS REQUIRED FOR COMPLETE INSTALLATION:

HEAD ACCESSORIES: 2 SERIES HEAD ACCESSORIES
POWER CABLE ADAPTOR: 45V11 (2PCA)

MODEL SELECTOR - TORCH PACKAGES

HEAD STYLE	CABLE STYLE	CABLE LENGTH	STANDARD CABLE	SUPERFLEX CABLE
RIGID HEAD -NO VALVE	3 Piece	12-1/2 ft. (3.8 m)	CK2312	CK2312SF
		25 ft. (7.6 m)	CK2325	CK2325SF
RIGID HEAD -WITH VALVE	3 Piece	12-1/2 ft. (3.8 m)	CK2312V	CK2312VSF
		25 ft. (7.6 m)	CK2325V	CK2325VSF

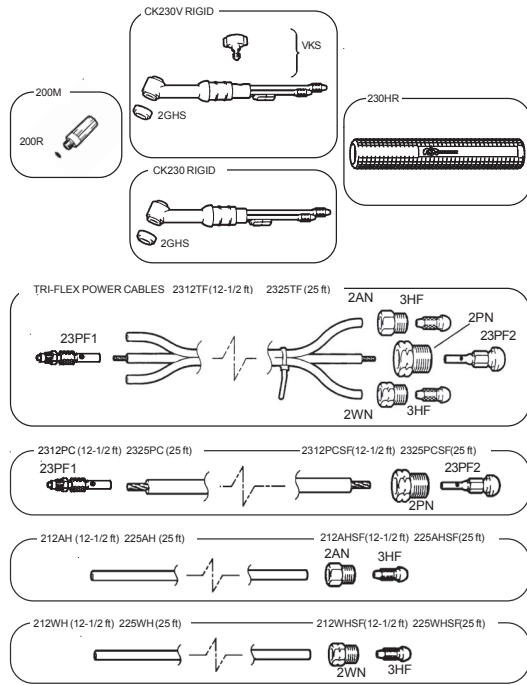
IMPORTANT !!
READ AND UNDERSTAND THE INFORMATION CONTAINED IN THIS MANUAL BEFORE OPERATING THE EQUIPMENT !

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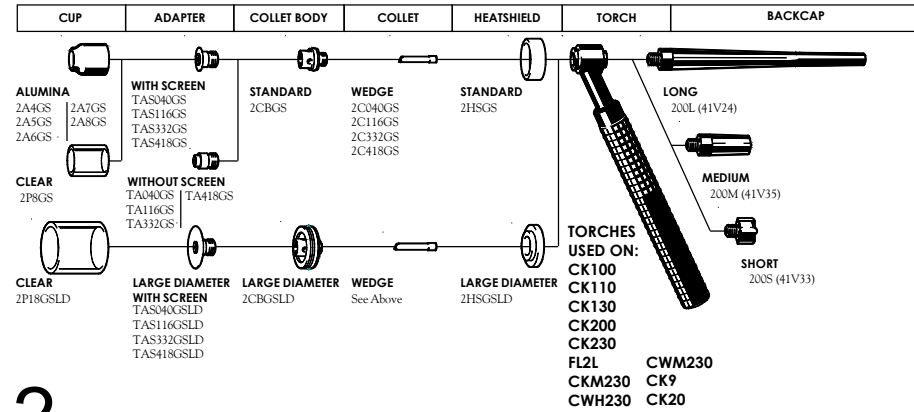
PARTS:



PART #	DESCRIPTION
TORCH	
CK230 RG.....	TORCH BODY
CK230V RG.....	TORCH BODY VALVED
230HR.....	HANDLE
TRI-FLEX POWER CABLE	
2312TF.....	TRI-FLEX POWER CABLE & HOSE ASSEMBLY -12-1/2 FOOT (INCLUDES FITTINGS)
2325TF.....	TRI-FLEX POWER CABLE & HOSE ASSEMBLY -25 FOOT (INCLUDES FITTINGS)
01-0032.....	CABLE TIE
2AN.....	GAS HOSE NUT
23PF1.....	POWER CABLE FITTING
23PF2.....	POWER CABLE FITTING
2PN.....	POWER CABLE NUT
2WN.....	WATER HOSE NUT
3HF.....	HOSE FITTING (2 REQUIRED)
INDIVIDUAL CABLE HOSES	
212AH.....	GAS HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
212AHSF.....	GAS HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
2312PC.....	POWER CABLE-12-1/2 FOOT (INCLUDES FITTINGS)
2312PCSF.....	POWER CABLE-12-1/2 FOOT (INCLUDES FITTINGS)
212WH.....	WATER HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
212WHSF.....	WATER HOSE-12-1/2 FOOT (INCLUDES FITTINGS)
2312TF.....	TRI-FLEX WATER, GAS, AND POWER-12-1/2 FOOT
2312SF.....	SUPERFLEX WATER, GAS, AND POWER-12-1/2 FOOT
225AH.....	GAS HOSE-25 FOOT (INCLUDES FITTINGS)
225AHSF.....	GAS HOSE-25 FOOT (INCLUDES FITTINGS)
2325PC.....	POWER CABLE-25 FOOT (INCLUDES FITTINGS)
2325PCSF.....	POWER CABLE-25 FOOT (INCLUDES FITTINGS)
225WH.....	WATER HOSE-25 FOOT (INCLUDES FITTINGS)
225WHSF.....	WATER HOSE-25 FOOT (INCLUDES FITTINGS)
2325TF.....	TRI-FLEX WATER, GAS, AND POWER-25 FOOT
2325SF.....	SUPERFLEX WATER, GAS, AND POWER-25 FOOT
ACCESSORIES	
2PCA (45V11).....	POWER CABLE ADAPTER (ORDER SEPARATELY) SAFE LOCK QUICK CONNECT
SLWHAT-T.....	TWECO POWER CABLE ADAPTER
SLWHAT-25.....	DINSE 25 POWER CABLE ADAPTER
SLWHAT-35.....	DINSE 35 POWER CABLE ADAPTER
SLWHAT-35M.....	DINSE 35 FLOW-THRU GAS POWER CABLE ADAPTER
200R.....	O-RING
200M.....	BACKCAP
2GHS.....	HEATSHIELD

NOTE:
TRI-FLEX CABLE CAN BE SEPARATED TO REPLACE GAS HOSE, WATER HOSE OR POWER CABLE INDIVIDUALLY

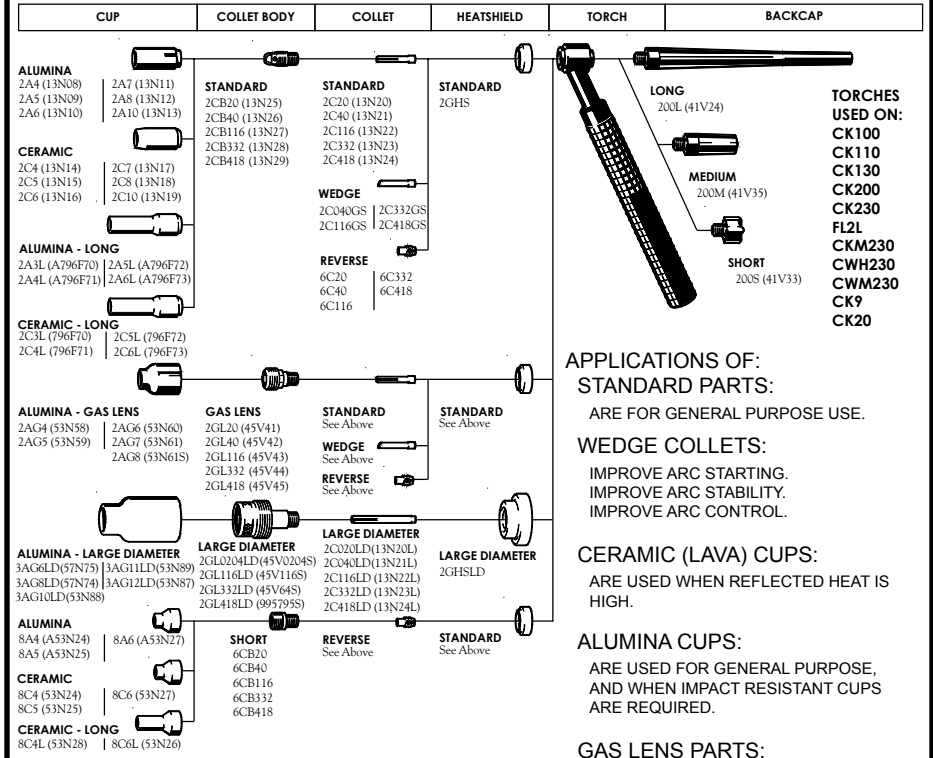
2 SERIES HEAD ACCESSORIES GAS SAVER



2

TORCHES USED ON:
CK100
CK110
CK130
CK200
CK230
FL2L
CKM230
CWM230
CWH230
CK9
CK20

2 SERIES HEAD ACCESSORIES



CUP	COLLET BODY	COLLET	HEATSHIELD	TORCH	BACKCAP
ALUMINA 2A4 (13N08) 2A5 (13N09) 2A6 (13N10)	2A7 (13N11) 2A8 (13N12) 2A10 (13N13)	STANDARD 2CB20 (13N25) 2CB40 (13N26) 2CB116 (13N27) 2CB332 (13N28) 2CB418 (13N29)	STANDARD 2C20 (13N20) 2C40 (13N21) 2C116 (13N22) 2C332 (13N23) 2C418 (13N24)	STANDARD 2GHS	
CERAMIC 2C4 (13N14) 2C5 (13N15) 2C6 (13N16)	2C7 (13N17) 2C8 (13N18) 2C10 (13N19)	WEDGE 2C040GS 2C116GS	REVERSE 2C332GS 2C418GS		
ALUMINA - LONG 2A3L (A796F70) 2A4L (A796F71)	2A5L (A796F72) 2A6L (A796F73)				
CERAMIC - LONG 2C3L (796F70) 2C4L (796F71)	2C5L (796F72) 2C6L (796F73)				
ALUMINA - GAS LENS 2AG4 (53N58) 2AG5 (53N59)	2AG6 (53N60) 2AG7 (53N61) 2AG8 (53N61S)	GAS LENS 2GL20 (45V41) 2GL40 (45V42) 2GL116 (45V43) 2GL332 (45V44) 2GL418 (45V45)	STANDARD See Above	STANDARD See Above	
ALUMINA - LARGE DIAMETER 3AG6LD(57N75) 3AG8LD(57N74) 3AG10LD(53N88)	3AG11LD(53N89) 3AG12LD(53N87) 3AG14LD(53N88)	LARGE DIAMETER 2GL204LD(45V0204S) 2GL116LD (45V116S) 2GL332LD (45V64S) 2GL418LD (995795S)	LARGE DIAMETER 2C020LD(13N20L) 2C040LD(13N21L) 2C116LD (13N22L) 2C332LD (13N23L) 2C418LD (13N24L)	LARGE DIAMETER 2GHSLD	
ALUMINA 8A4 (A53N24) 8A5 (A53N25)	8A6 (A53N27)	SHORT 6CB20 6CB40 6CB116	REVERSE See Above	STANDARD See Above	
CERAMIC 8C4 (53N24) 8C5 (53N25)	8C6 (53N27)	6CB332 6CB418			
CERAMIC - LONG 8C4L (53N28)	8C6L (53N26)				

TORCHES USED ON:
CK100
CK110
CK130
CK200
CK230
FL2L
CKM230
CWH230
CWM230
CK9
CK20

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 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

3