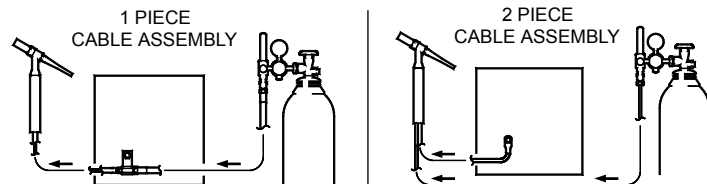


**WARRANTY:** CK Worldwide, Inc. warrants products manufactured by CK Worldwide, Inc. to be free of defects in materials and workmanship. CK Worldwide, Inc. limits this warranty to replacement of the product or parts thereof and excludes liability for injury, property damage or economic loss attributable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

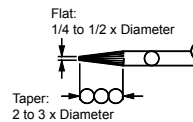


**INFORMATION CHART:**

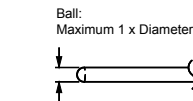
Electrode Diameter in inches (mm)	Cup Size	WELDING CURRENT (AMPS) - TUNGSTEN TYPE				ARGON FLOW - FERROUS METALS		ARGON FLOW - ALUMINUM	
		AC Pure	AC Thoriated	DCSP Pure	DCSP Thoriated	Standard Body (Liters)	Gas Lens Body (Liters)	Standard Body (Liters)	Gas Lens Body (Liters)
.020 (0.50)	4 or 5	5 - 15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

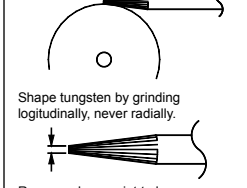


**ACHF**  
General Purpose:

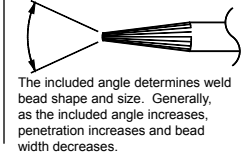


Ball tip by arcing on clean metal at low current DCRP (EP) then slowly increase current to form the desired ball diameter.

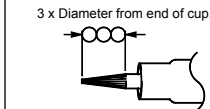
**GRINDING PREPARATION:**  
Use a 60 Grit or finer aluminum oxide wheel



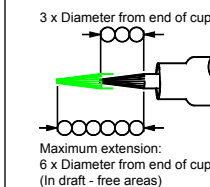
Remove sharp point to leave a truncated point with a flat spot. Diameter of flat spot determines amperage.



**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



CK24 & CK24V RIGID

TECHNICAL INFORMATION

RATING @ 100% DUTY CYCLE: 80 AMP ACHF OR DCSP  
COOLING METHOD: GAS COOLED

ACCESSORY ITEMS REQUIRED FOR COMPLETE INSTALLATION:

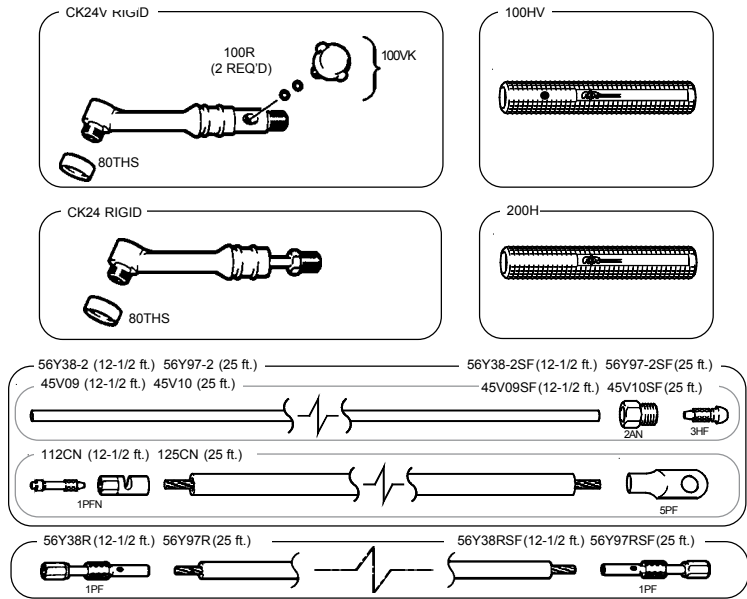
HEAD ACCESSORIES: 8 SERIES HEAD ACCESSORIES  
POWER CABLE ADAPTOR: 1PCA

MODEL SELECTOR - TORCH PACKAGES

HEAD STYLE	CABLE	LENGTH	STANDARD #	SUPERFLEX #
Rigid Head w/o Valve	2 Piece	12½ft (3.8m)	CK24-12-2 RG	CK24-12-2SF RG
		25ft (7.6m)	CK24-25-2 RG	CK24-25-2SF RG
Rigid Head w/o Valve	1 Piece	12½ft (3.8m)	CK24-12-R RG	CK24-12-RSF RG
		25ft (7.6m)	CK24-25-R RG	CK24-25-RSF RG
Rigid Head with Valve	2 Piece	12½ft (3.8m)	CK24V-12-2 RG	CK24V-12-2SF RG
		25ft (7.6m)	CK24V-25-2 RG	CK24V-25-2SF RG
Rigid Head with Valve	1 Piece	12½ft (3.8m)	CK24V-12-R RG	CK24V-12-RSF RG
		25ft (7.6m)	CK24V-25-R RG	CK24V-25-RSF RG

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

PARTS:



PARTS LIST:

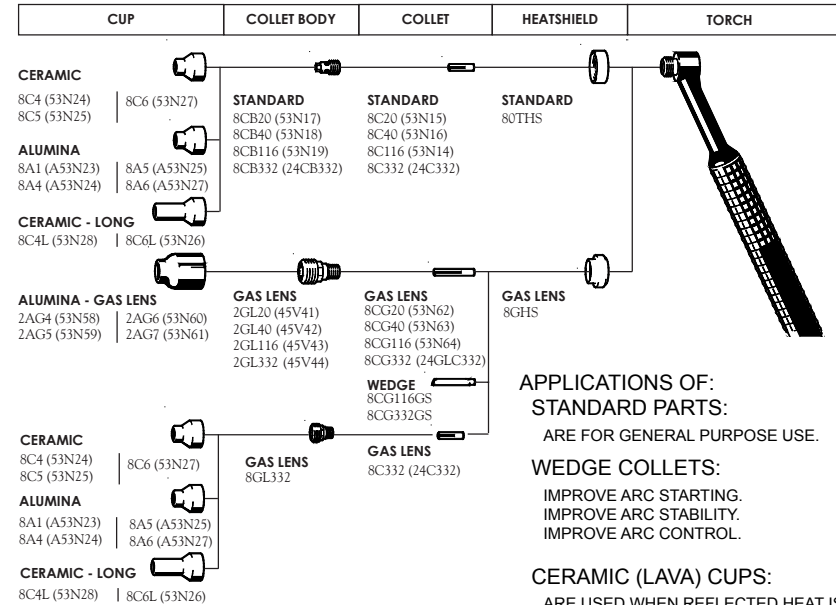
PART NUMBER	DESCRIPTION
CK24 RIGID	Torch Body, Rigid, 70 degree, 80 Amp
CK24V RIGID	Torch Body with Valve, Rigid, 70 degree, 80 Amp
100VK	Gas Valve, Top Mounted
200H	Handle
100HV	Handle For Valved Torch
112CN	Power Cable with Fittings, 12-1/2 ft.
125CN	Power Cable with Fittings, 25 ft.
56Y38R	Power Cable Assembly, Hi-Flex 1 Piece, 12-1/2 ft.
56Y38RSF	Power Cable Assembly, Super Flex 1 Piece, 12-1/2 ft.
56Y97R	Power Cable Assembly, Hi-Flex 1 Piece, 25 ft.
56Y97RSF	Power Cable Assembly, Super Flex 1 Piece, 25 ft.
56Y38-2	Power Cable Assembly, Hi-Performance 2 Piece, 12-1/2 ft.
56Y38-2SF	Power Cable Assembly, Super Flex 2 Piece, 12-1/2 ft.
56Y97-2	Power Cable Assembly, Hi-Performance 2 Piece, 25 ft.
56Y97-2SF	Power Cable Assembly, Super Flex 2 Piece, 25 ft.
100R	O-Ring
45V09	Gas Hose with Fittings, 12-1/2 ft.
45V09SF	Gas Hose with Fittings, 12-1/2 ft., Super Flex
45V10	Gas Hose with Fittings, 25 ft.
45V10SF	Gas Hose with Fittings, 25 ft., Super Flex
80THS	Heat Shield
2AN	Gas Nut
3HF	Hose Fitting
5PF	Power Cable Fitting
1PFN	Power Cable Fitting
1PF	Power Cable Fitting

ACCESSORIES:

SL2	Tweco Power Cable Adapter
SL2-25	Dinse 25 Power Cable Adapter
SL2-35	Dinse 35 Power Cable Adapter
SL2-35M	Dinse 35 Flow-thru Gas Power Cable Adapter

2

8 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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