

Hand Cutting Torch Heavy-Duty Outfits

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**Gas
Equipment**



Quick Specs

Typical Applications

Shipbuilding
Railroad
Salvage
Pipeline
Metal fabrication
Construction and demolition

Oxy-Fuel Processes

Cutting
Heating

Fuel Gases

Acetylene
Propane
Propylene
Natural gas

Cutting Capacity

Up to 1-1/4 in. (32 mm) with included tips,
up to 12 in. (305 mm) with optional tips

Heating Capacity

Up to 312,250 Btu with optional tips

Heavy-duty oxy-fuel hand cutting torch systems for your cutting needs.



Heavy-duty outfit HBAS-30510 shown.
See page 2 for additional outfits and descriptions.

DESIGNED FOR SAFETY

Three-tube construction keeps gases separate in the torch until mixed at the tip for safety.

In-tip gas mixing ensures lowest amount of mixed gas in the system. Sustained backfire can be isolated in the tip, helping protect the operator and the torch.

Concave-shaped tip end reduces backfire and resists flameout during accidental contact with the base metal while cutting.

External relief valve protects regulator from damage due to inadvertent high-pressure surge. Relief valve will release excessive pressure and automatically reset.

Dual filters including Sure Seat™ protect regulator high-pressure seat from debris for reliable operation and long service life.

HIGH PERFORMANCE

Silver-brazed torch joints provide strength, leak resistance and heat protection.

Nickel-plated torch assembly provides heat protection.

Stainless steel ball-style valves provide smooth adjustment and positive seating to eliminate leaks.

Hand-tighten only to seat the tip, saving time and tools when changing tips.

Graf-Tite™ soft seats on tips compress and conform to the shape of the torch head for positive seating, eliminating leaks even when tips are nicked. Soft seat withstands extremely high temperature for longer tip life.

Easy-to-read gauges with shatter-resistant polycarbonate lens covers.



Torches are warrantied for 25 years, parts and labor.
Regulators are warrantied for three years, parts and labor.



Underwriters Laboratories (UL) Listed
for gas pressure regulators.



Electrical Testing Laboratories (ETL) Listed
for oxy-fuel torches and tips.



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Hand Cutting Torch Heavy-Duty Outfits Include



HBS-H510S (shown) / HBS-H300S outfits include SC229 hand cutting torch, cutting tip, Series™ 40 heavy-duty oxy and fuel regulators with regulator guards.



HBAS-30510 / HBAS-30300 (shown) outfits include SC229 hand cutting torch, cutting tip, Series™ 30 oxy and fuel regulators, 20 ft. (6.1 m) hose, flashback arrestors, single-flint lighter, shade 5 safety glasses, and tip cleaner.

SC229 Heavy-Duty Hand Cutting Torch



Ideal for construction, fabrication and shipyard industries.
Cuts up to 12-inch (305 mm) thick steel with acetylene, propane/natural gas or propylene.

Materials of construction

- Handle, lever and butt: nickel-plated brass
- Tubes: nickel-plated stainless steel
- Hose connections: nickel-plated brass
- Inlet filter: sintered bronze
- Handle tube: nickel-plated brass
- Front piece: nickel-plated brass
- Valve stem: bronze
- Valve packing: PTFE
- Valve ball: stainless steel
- Valve nut: nickel-plated brass
- Valve knob: nickel-plated zinc
- Springs: stainless steel
- Silver-brazed assembly
- Cutting valve stem: stainless steel
- Cutting seat: Buna-N
- Seat retainer: brass
- O-rings: Buna-N

Specifications

Length: 20.5 in. (521 mm)
Weight: 2.7 lb. (1.22 kg)
Head angle: 90 degrees

Repair kit SC100

Valve assembly replacement LW14B-1

Warranty 25 years

FUEL GAS	CUTTING, GOUGING AND HEATING TIPS	
	STOCK NO.	DESCRIPTION
Acetylene	SC12-00 to SC12-6 SC12-4X9 SC14-3 SC13-3 and SC13-5 SC83	General cutting tips Extra-long cutting tip Rivet/riser cutting tip Gouging tips Heating tip
Propane/natural gas	SC40-0 to SC40-4 SC46-2 to SC46-6 SC50-0 to SC50-6 SC2-2 and SC2-4 SC112	General cutting tips Dirty or coated metal cutting tips Heavy preheat cutting tips Gouging tips Heating tip
Propylene	SC60-0 to SC60-6	General cutting tips

Heavy-Duty Cutting and Gouging Tips



SC12-1

(included in HBAS-30510 and HBAS-30300 outfits)

Materials of construction

- Body: tellurium copper
- Seats: graphite
- Seat collars: brass



SC12-2

(included in HBS-H510S and HBS-H300S outfits)

Materials of construction

- Body: tellurium copper
- Seats: graphite
- Seat collars: brass

GENERAL CUTTING TIPS (Except as Noted)

STOCK NO.	METAL THICKNESS INCH (MM)	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)	
		OXYGEN	ACETYLENE	OXYGEN	ACETYLENE
SC12-00	3/16 (5)	20	10	31	6.5
SC12-0	1/4-3/8 (6-10)	30-35	10	47.5-57.5	7
SC12-1	1/2-5/8 (13-16)	35-40	10	86-96	9.5
SC12-2	3/4-1-1/4 (19-32)	36-51	10	117-147	10.5
SC12-3	1-1/2-2 (38-51)	42-47	10	184-194	12
SC12-4	2-1/2-4 (64-102)	38-54	10	255-331	13-14
SC12-5	5-8 (127-203)	56-78	10	450-580	26*
SC12-6	10-12 (254-305)	83-125	10	782-1,007	28*
SC12-4X9 (Extra Long)	4 (102)	50	10	331	14
SC14-3 (Rivet/Riser)	1-1/2 (38) rivets	40	10	190	20
SC13-3 (Gouging)	3/8 x 1/4 (10 x 6)	20	10	151	35
SC13-5 (Gouging)	1/2 x 3/8 (13 x 10)	25	10	246	50*

*Minimum of one 350 cubic foot cylinder required.

		OXYGEN	PROPANE/ NATURAL GAS	OXYGEN	PROPANE/ NATURAL GAS
SC40-0	1/4-3/8 (6-10)	30-35	10	78-88	8
SC40-1	1/2-5/8 (13-16)	35-40	10	113-123	8
SC40-2	3/4-1-1/4 (19-32)	36-51	10	143-173	8
SC40-3	1-1/2-2 (38-51)	42-47	10	208-218	8
SC40-4	2-1/2-4 (64-102)	38-54	10	305-380	15
SC2-2 (Gouging)	5/16 x 1/8 (8 x 3)	60	22	389	53
SC2-4 (Gouging)	3/8 x 1/4 (10 x 6)	75	22	564	53
		OXYGEN	PROPYLENE	OXYGEN	PROPYLENE
SC60-0	1/4-3/8 (6-10)	30-35	10	78-88	9
SC60-1	1/2-5/8 (13-16)	35-40	10	113-123	9
SC60-2	3/4-1-1/4 (19-32)	36-51	10	143-173	9
SC60-3	1-1/2-2 (38-51)	42-47	10	208-218	12
SC60-4	2-1/2-4 (64-102)	38-54	10	298-373	15
SC60-5	5-8 (127-203)	56-78	10	478-608	15
SC60-6	10-12 (254-305)	83-125	10	808-1,033	15

Heavy-Duty Cutting and Gouging Tips (continued)

DIRTY OR COATED METAL CUTTING TIPS

STOCK NO.	METAL THICKNESS INCH (MM)	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)	
		OXYGEN	PROPANE/NATURAL GAS	OXYGEN	FUEL GAS
SC46-2	3/4–1-1/4 (19–32)	36–51	10	175–205	15 (propane) 41 (natural gas)
SC46-4	2-1/2–4 (64–102)	38–54	10	310–385	
SC46-5	5–8 (127–203)	56–78	10	525–655 (with propane) 510–640 (with natural gas)	22 (propane) 52 (natural gas)
SC46-6	10–12 (254–305)	83–125	12	855–1,080 (with propane) 840–1,065 (with natural gas)	

HEAVY PREHEAT CUTTING TIPS

		REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)	
		OXYGEN	PROPANE/NATURAL GAS	OXYGEN	FUEL GAS
SC50-0	1/4–3/8 (6–10)	30–35	10	87–97 (with propane) 102–112 (with natural gas)	13 (propane) 38 (natural gas)
SC50-1	1/2–5/8 (13–16)	35–40	10	145–155	15 (propane) 40 (natural gas)
SC50-2	3/4–1-1/4 (19–32)	36–51	10	175–210 (with propane) 175–205 (with natural gas)	15–16 (propane) 40 (natural gas)
SC50-3	1-1/2–2 (38–51)	42–47	10	245–255 (with propane) 240–250 (with natural gas)	16 (propane) 40 (natural gas)
SC50-4	2-1/2–4 (64–102)	38–54	10	315–395 (with propane) 315–390 (with natural gas)	16–17 (propane) 45 (natural gas)
SC50-5	5–8 (127–203)	56–78	10	500–640 (with propane) 502–632 (with natural gas)	17–20 (propane) 50 (natural gas)
SC50-6	10–12 (254–305)	83–125	10–12	980–1,255 (with propane) 870–1,140 (with natural gas)	50–60 (propane) 75–100 (natural gas)

Heavy-Duty Heating Tips

STOCK NO.	AVERAGE BTU/HOUR	REGULATOR PRESSURE (PSIG)		GAS CONSUMPTION (SCFH)		LENGTH INCH (MM)	FUEL CYLINDERS REQUIRED
		OXYGEN	FUEL GAS	OXYGEN	FUEL GAS		
SC83	76,440	15	10 (acetylene)	58	52 (acetylene)	3.5 (89)	2 (350 cu. ft.)
SC112	312,250	60	25 (propane)	495	125 (propane)	3.5 (89)	2 (100 lb. cylinders)

Series 40™ Heavy-Duty Single-Stage Regulators



40-175-540

(included with HBS-H510S and HBS-H300S outfits
along with regulator guard shown below)



40-15-510

(included with HBS-H510S outfit
along with regulator guard shown below)



40-15-300

(included with HBS-H300S outfit
along with regulator guard shown below)

STOCK NO.	GAS	GAUGES (2.5 INCH /63.5 MM)		MAX. DELIVERY PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
		INLET	OUTLET				
40-175-540 40-175-540S*	Oxygen	4,000 psig (276 bar)	200 psig (14 bar)	175 psig (12 bar)	3,000 psig (207 bar)	9/16"-18 RH "B"	CGA 540
40-275-540	Oxygen	4,000 psig (276 bar)	400 psig (28 bar)	275 psig (19 bar)	400 psig (28 bar)	9/16"-18 RH "B"	CGA 540
40-15-300 40-15-300S*	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 300
40-15-510 40-15-510S*	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510
40-50-510	LP gas**	400 psig (28 bar)	60 psig (4 bar)	50 psig (3 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510

*Includes HB190 Hard Hat™ regulator guard. 40-175-540S and 40-15-300S or 40-15-510S are included in HBS outfits.
40-175-540S showing the HB190 regulator guard is pictured at right.
**Propane, propylene or natural gas.



Series 30™ Medium-Duty Single-Stage Regulators



30-100-540

(included with HBAS-30510
and HBAS-30300 outfits)



30-15-510

(included with HBAS-30510 outfit)



30-15-300

(included with HBAS-30300 outfit)

STOCK NO.	GAS	GAUGES (2 INCH /51 MM)		MAX. DELIVERY PRESSURE	MAX. INLET PRESSURE	OUTLET CONNECTION	INLET CONNECTION
		INLET	OUTLET				
30-100-540	Oxygen	4,000 psig (276 bar)	150 psig (10 bar)	100 psig (7 bar)	3,000 psig (207 bar)	9/16"-18 RH "B"	CGA 540
30-15-510	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510
30-15-300	Acetylene	400 psig (28 bar)	30 psig (2 bar)	15 psig (1 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 300
30-50-510	LP gas*	400 psig (28 bar)	60 psig (4 bar)	50 psig (3 bar)	400 psig (28 bar)	9/16"-18 LH "B"	CGA 510

*Propane, propylene or natural gas.

Note: Regulators are also sold in Twin Pack options. HTP2 includes 30-100-540 and 30-15-510. HTP5 includes 30-100-540 and 30-15-300.

Ordering Information

OUTFITS	STOCK NO.	DESCRIPTION	QTY.	PRICE
Heavy-Duty Hand Cutting Torch Outfits Acetylene	HBS-H510S	With SC229 hand cutting torch, SC12-2 cutting tip, 40-175-540S oxy regulator, 40-15-510S fuel regulator, and HB190 Hard Hat™ regulator guards		
	HBS-H300S	Same as HBS-H510S, but with 40-15-300S fuel regulator		
	HBAS-30510	With SC229 hand cutting torch, SC12-1 cutting tip, 30-100-540 oxy regulator, 30-15-510 fuel regulator, 20 ft. (6.1 m) 3/16 in. (5 mm) "R"-grade hose, H743 torch-mount flashback arrestors, single-flint lighter, shade 5 safety glasses, and tip cleaner		
	HBAS-30300	Same as HBAS-30510, but with 30-15-300 fuel regulator		
REPLACEMENT PARTS				
Torch Head Nut	G900-41A	For SC229 torch		
Repair Kit	SC100	For SC229 torch. Includes two o-rings, SST pin, push rod, two screws, seat assembly, and two cutting valve spring		
Valve Assembly	LW14B-1	For SC229 torch. Valve assembly (pair)		
ACCESSORIES				
Flashback Arrestors	H743	Torch-mount flashback arrestors (pair)		
Check Valves	H697	Torch-mount reverse-flow check valves (pair)		
Twin-Hose	RL935	For acetylene. 20 ft. (6.1 m) "R"-grade twin-hose, 3/16 in. ID, "B" fittings		
	RL1131	For acetylene. 25 ft. (7.6 m) "R"-grade twin-hose, 1/4 in. ID, "B" fittings		
	TRL1131	For propane/natural gas. 20 ft. (6.1 m) "T"-grade twin-hose, 1/4 in. ID, "B" fittings		
Hard Hat™ Regulator Guard	HB190	For Series 40 regulators. Rugged steel with bright yellow, baked-enamel finish		
Cylinder Wrench	N230			
Adjustable Circle Cutting Guide	16229	Cuts from 5/8 to 12 in. diameter holes — works with all MC- and SC-style cutting tips		

DATE:

TOTAL QUOTED PRICE:

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