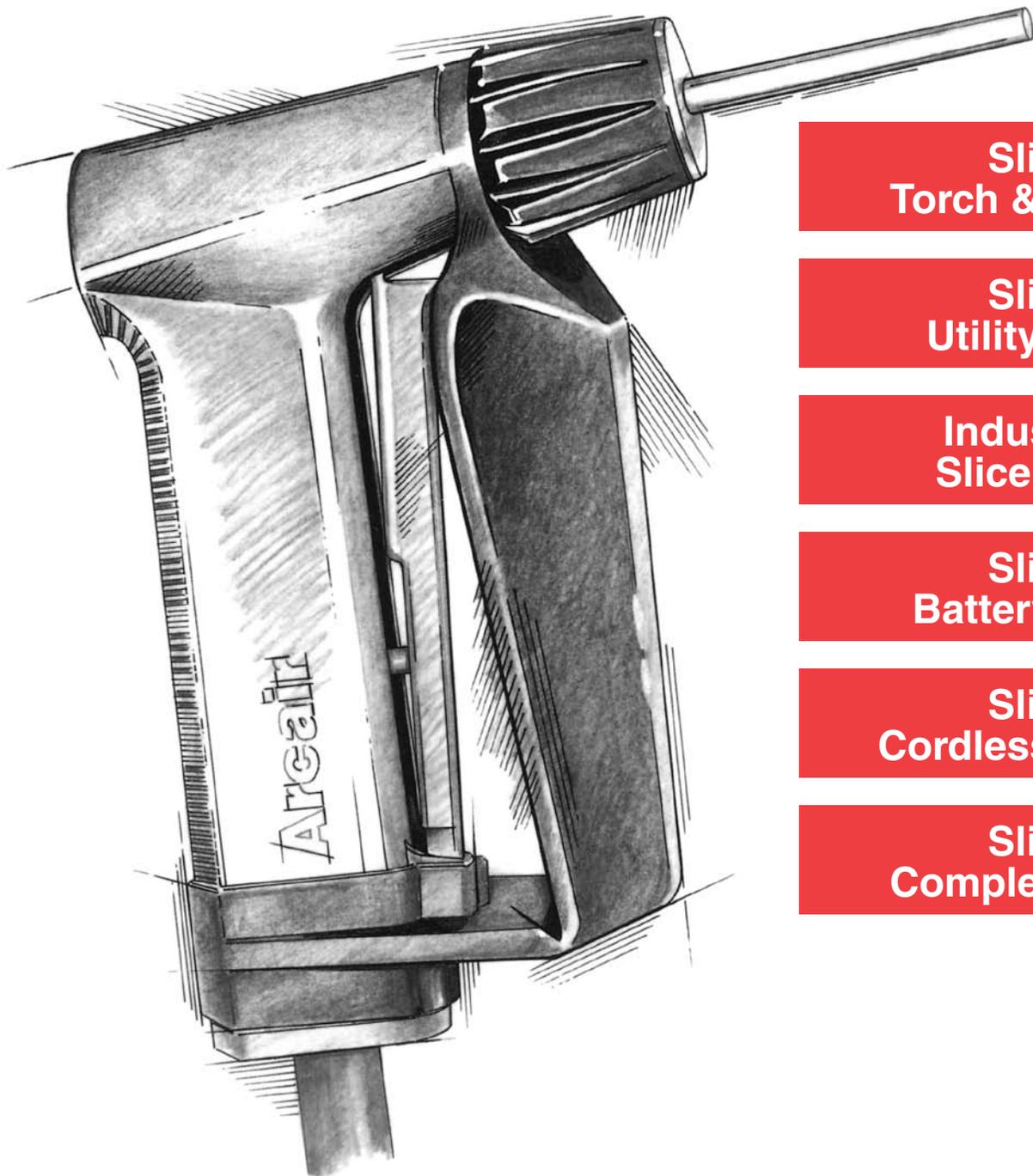




Arcair[®]
Professional

SLICE[®] Cutting Systems PRODUCT CATALOG



**Slice
Torch & Striker**

**Slice
Utility Pack**

**Industrial
Slice Pack**

**Slice
Battery Pack**

**Slice
Cordless Striker**

**Slice
Complete Pack**

SLICE® CUTTING SYSTEMS

YOU NAME IT YOU CAN CUT IT!!

Unlike any other cutting technology used today, the new Arcair SLICE System can cut, burn or pierce virtually any metallic, non-metallic or composite material.

Cuts right through hard-to-cut materials

Such as mild, stainless and alloy steels. Cast iron, aluminum, magnesium and other non-ferrous metals. Slag and refractory materials. Punch through concrete or brick. Even if it's caked with rust, mud or other corrosion, you can cut through nearly anything with the SLICE System.

Handles hundreds of cutting jobs

Use the Arcair SLICE System in the shop or in the field to repair and maintain heavy equipment and remove headless bolts or frozen pins. You can cut insulated pipe or ducting. Make short work of rebar and coated structural steel. Burn through bridge steel and decking, concrete lined pipe and highway guard rails. Or take hardfacing off buckets and wear surfaces.

This unique system is a natural for plant maintenance, building renovation or demolition, scrap cleanup and salvage work. It removes cutting edges on loaders for repair or replacement. Even burns through mud or rust-covered machinery frames.

There's never been a more versatile cutting tool!

Fast Cutting Speed

Because the Arcair SLICE System needs no pre-heat, you can start cutting sooner to finish every job faster. And compared to oxyacetylene cutting, the SLICE System is three times faster on 3" mild steel, twice as fast on 1/8" steel. You get similar results with other common metals. And for materials oxyacetylene can't cut — such as aluminum, stainless steel, cast iron and mineral aggregates — there's no contest.

It works like this

The SLICE System uses a special Arcair torch that feeds oxygen and electrical power to a patented SLICE exothermic cutting rod. You supply oxygen and a 12-volt battery or a welding machine (CC). The battery gives you fast ignition and portability. The

welding machine lets you maintain a continuous arc (up to 200 amps) with conductive materials for cutting temperatures over 10,000 F (5,538 C).

Either way, you simply turn on the oxygen and touch the cutting rod to the SLICE striker or grounded work piece. The cutting rod ignites immediately and continues to burn. Even without current, it produces temperatures hot enough to cut through virtually any material.

Comfortable and easy to use

The SLICE torch has a comfort-designed pistol grip, a tough but lightweight shield to help protect the operator from heat and sparks, and a squeeze lever on the handle for easy oxygen control. An optional collet extension and shield provide additional protection from heat produced during piercing operations. The Arcair SLICE torch, complete with cables and cutting rod, weighs less than seven pounds.

Carry-all convenience

Because the work can't always come to you, we've packed the awesome cutting power of the Arcair SLICE System into several portable SLICE Packs offering your choice of options. So now there are a variety of ways to take the SLICE exothermic torch with you, anywhere in the plant ... in your service truck ... or to the most remote job site. These SLICE Pack Systems make sure you'll get exactly what you need.

The right cutting rod for any job

Arcair lets you choose the SLICE cutting rod that's best for your cutting job. Economical 1/4" x 22" rods. Heavy duty 3/8" diameter rods for wider cuts through thick materials and those heavy piercing jobs. Flux coated rods for more cut per rod inch and good arc stability when operating with power. There's even a 1/4" x 44" uncoated rod for cutting in hard-to-reach areas.

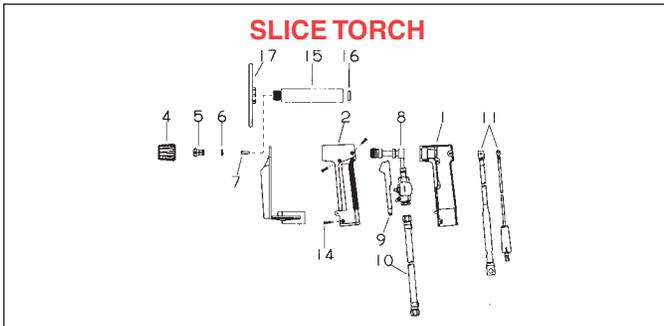
And all SLICE cutting rods cut fast — because once they're ignited they **continue to burn** as long as you maintain the oxygen flow.

ARCAIR SLICE TORCH AND STRIKER

The **SLICE® Torch** feeds oxygen and electrical power to a specially designed SLICE Exothermic Cutting Rod. You supply oxygen and either a 12-volt battery or a welding power supply. Either way, after turning on the oxygen and touching the carbon steel cutting rod to the grounded workpiece or a striker plate, the cutting rod ignites immediately.

The SLICE Torch is sold complete, ready to connect to a welding power supply or battery and an oxygen tank.

Safety features such as a protective hand guard and spark arrestor are built into each SLICE Torch. The torch (Catalog No. 03-003-000) comes with a 10 ft. (3.0 m) power cable and oxygen hose. It is also available with a Cam-lok connector (Catalog No. 03-003-001 and 03-003-006) to make twist lock connections with available packages.

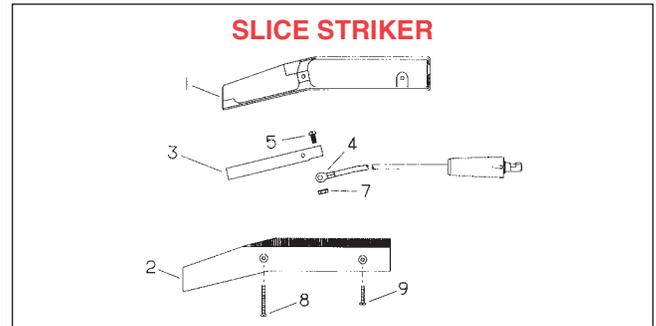


The torch for the **SLICE Cordless Striker Pack** has a 10 ft. oxygen hose, but only has a short cable pigtail for emergency use. The torch is 7.5" (19 cm) long and weighs 7 pounds (3 kg) with the cables.

An optional SLICE Striker (Catalog No. 72-012-002) may be purchased to provide a convenient surface for igniting the rod with a 12-volt battery instead of a welding power supply.

NOTICE

All SLICE torches come standard with the 1/4" Collet Chuck and Collet Nut. This includes all torches in any SLICE Pack. To utilize the 3/8" rods the user must order the 3/8" rod conversion kit which includes the 3/8" Collet Chuck and Collet Nut.



REF. NO.	DESCRIPTION	CATALOG NO.
	SLICE Torch Assembly (#1 Cable)	03-003-000
	SLICE Torch Assembly (#6 Cable)	03-003-001
	SLICE Torch Assembly (#10 Cable)	03-003-006
	SLICE Torch Assembly (Pigtail Cable)	03-003-008
1	Handle Assembly, Right Half	94-370-166
2	Handle Assembly, Left Half	94-370-167
3	Shield	94-777-109
4	1/4" Collet Nut Assembly	94-168-022
4	3/8" Collet Nut Assembly	94-168-024
5	1/4" Collet Chuck	94-158-048
5	3/8" Collet Chuck	94-158-045
6	Washer	94-940-109
7	Flashback Arrestor	94-305-009
8	Head Assembly	94-378-338
9	Lever Assembly	94-476-082
10	Oxygen Hose Assembly	94-396-193
11	Cable Assembly - #1	96-130-279
	Cable Assembly - #6	96-130-276
	Cable Assembly - #10	96-130-319
	Cable Assembly - Pigtail	96-130-324
13	#10-32 X 3/8" Screw	97-192-137
14	#6-32 X 9/16" Screw (3 Req'd.)	97-192-129
15	Extension - 6"	94-168-023
16	Washer	94-940-108
17	Extension Shield	94-777-111
	3/8" Conversion Kit	94-463-032

REF. NO.	DESCRIPTION	CATALOG NO.
	Striker Assembly	72-012-002
1	Handle Assembly (Right Half)	94-370-168
2	Handle Assembly (Left Half)	94-370-169
3	Striker Bar	96-070-031
4	Cable Assembly	96-130-320
5	#10-32 X 3/8" Screw	97-132-002
7	#10-32 Nut	98-565-021
8	#6-32 X 1-1/4" Screw	97-192-130
9	#6-32 X 3/4" Screw	97-192-132

SLICE® EXOTHERMIC CUTTING RODS

SLICE exothermic cutting rods are designed specifically for use with SLICE cutting systems. Their unique one piece patented construction maintains the balance necessary to sustain the exothermic reaction. Once the oxygen flow is started and the rod is ignited, it will continue to burn without electrical power, as long as oxygen flow is maintained. The following is a list of the SLICE cutting rods available:

	Flux coated Catalog No.	Uncoated Catalog No.
1/4" x 22" (7 x 559mm)		
25 pcs.	42-049-002	43-049-002
100 pcs.	42-049-003	43-049-003
1/4" x 44" (7 x 1118mm)		
25 pcs.	N/A	43-049-005
3/8" x 18" (10 x 457mm)		
50 pcs.	42-049-005	43-049-007
3/8" x 36" (10 x 914mm)		
25 pcs.	N/A	43-049-009

ARCAIR SLICE UTILITY PACK

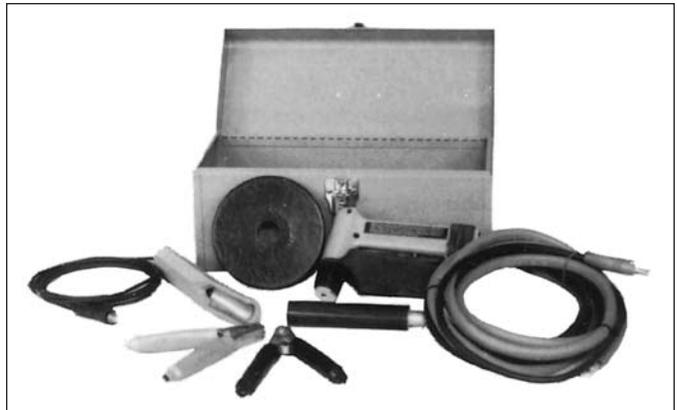
Catalog No. 63-991-026

The **SLICE Utility Pack** permits you to use the exothermic cutting process to cut virtually any metallic, non-metallic or composite material. This package has the basic items needed to do a cutting job packed in a rugged tool box. Just supply oxygen and an ignition source and you are ready to cut. The power cables on the torch and striker assemblies in this pack should be used with a 12-volt battery only. Also included is the collet extension and shield for added protection when piercing. The following items are included in the SLICE Utility Pack:

SLICE UTILITY PACK PARTS LIST

Catalog No. 63-991-026

DESCRIPTION	CATALOG NO.
SLICE Utility Pack	63-991-026
Tool Box	94-134-049
Torch Assembly	03-003-001
Striker Assembly	72-012-002
Collet Extension Assembly	94-168-023
Extension Shield	94-777-111
Clamp (Red)	96-168-035
Clamp (Black)	96-168-036
Coupling	94-173-016
Instruction Manual	89-250-845



ARCAIR INDUSTRIAL SLICE PACK

Catalog No. 63-991-021

The **Industrial SLICE Pack** now gives you the versatility of exothermic cutting and accommodates a larger oxygen cylinder to extend your cutting time. The industrial cart is capable of carrying a 9" diameter cylinder. The Industrial SLICE Pack includes SLICE torch and striker assemblies with 10 feet oxygen hose and power cables. Also included is an industrial battery charger for user convenience, 6" collet extension and shield, regulator and a supply of cutting rods with rod storage area. The user supplies their own 12 Volt battery to complete the system.

SLICE INDUSTRIAL PACK PARTS LIST

Catalog No. 63-991-021

DESCRIPTION	CATALOG NO.
SLICE Industrial Pack	63-991-021
Cylinder Cart	92-090-202
Case	94-134-042
Battery Charger	96-156-003
12" Rubber Tie Down	94-861-003
U-Bolt	97-001-041
Oxygen Regulator	94-698-084
Torch Assembly	03-003-001
Striker Assembly	72-012-002
1/4 x 20 Nut (2 Req'd.)	98-566-067
Rod Holder	94-394-042
Clamps (4 Req'd.)	94-166-079
10-32 X 3/8" Screw (4 Req'd.)	97-192-113
10-32 Acorn Nut (4 Req'd.)	98-566-077
1/4" Cutting Rods (Qty. 25)	43-049-002
Wrench	94-960-063
Wrench	94-960-064
Collet Extension Assembly	94-168-023
Extension Shield	94-777-111
Clamp Assembly (Red)	96-168-035
Clamp Assembly (Black)	96-168-036
Instruction Manual	89-250-845



*** BATTERY IS NOT INCLUDED**

ARCAIR SLICE BATTERY UNIT PACK

Catalog No. 63-991-003

The **SLICE Battery Unit Pack** now comes in a rugged metal tool box. As with the utility pack you get all the basic items needed to do a cutting job such as torch, striker and rods. Included in the Battery Unit is an ignition source in the form of the 12-volt rechargeable SLICE Battery Box Assembly. You also get the collet extension and shield for piercing.

SLICE PACK BATTERY UNIT PARTS LIST

Catalog No. 63-991-003

DESCRIPTION	CATALOG NO.
SLICE Battery Pack 120 VAC/60Hz	63-991-003
SLICE Battery Pack 220 VAC/50Hz	63-991-007
1/4" Cutting Rod (Qty. 25)	43-049-002
Literature Pack	89-250-857
Battery Box Assembly	96-076-021
Tool Box	94-134-047
Striker Assembly	72-012-002
Torch Assembly	03-003-006
Collet Extension Assembly	94-168-023
Extension Shield	94-777-111
Charging Cable, 120VAC/60 HZ	96-130-297
Charging Cable, 220VAC/50 HZ	96-130-296
Coupling	94-173-016
Instruction Manual	89-250-845



SLICE CORDLESS STRIKER PACK

Catalog No. 63-991-032

The **SLICE Cordless Striker Pack** is the latest addition to the complete line of exothermic cutting equipment. The SLICE Cordless Striker uses two small lead-acid batteries to supply a current surge sufficient enough to ignite both the 1/4" and 3/8" bare SLICE Cutting Rods. Just put a bare SLICE Cutting Rod in the torch and start the oxygen flowing. Then touch the rod to the upper contact point in the head of the Cordless Striker and scratch the rod tip against the striker bar to cause the arcing action to start. This will cause the rod to ignite and the cutting process can begin.

You no longer need the cables that run from a torch and striker to the battery. All of this has been put into the hand held striker igniter. When it is time to recharge just insert the igniter into one of the receptacles on the recharging unit. The red light will come on indicating the unit is charging. When the green light comes on the igniter is recharged and ready to go. The recharging unit is capable of charging two igniters at a time, in less than four hours.

Along with an igniter and the recharging unit you get the SLICE Torch, a supply of rods and the collet extension and shield for piercing. These parts all come in a rugged metal tool box.

SLICE CORDLESS STRIKER PACK PARTS LIST

Catalog No. 63-991-032

DESCRIPTION	CATALOG NO.
Tool Box	94-134-047
SLICE Torch Assembly	03-003-008
Cordless Striker Igniter	72-012-007
Recharging Unit	96-076-034
Igniter and Recharging Unit	96-076-030
Collet Extension Assembly	94-168-023
Collet Extension Shield	94-777-111
Coupling	94-173-016
1/4" Uncoated Rods (25 Req'd)	43-049-002
Instruction Manual	89-250-845
STRIKER IGNITER PARTS LIST	72-012-007
Cordless Striker Power Cell	94-370-187
Head Housing Assembly ¹	94-378-357
Upper Striker Bar Assembly ¹	94-070-090
Lower Striker Bar Assembly ¹	94-070-091
Protective Head Cover	94-105-024

Note 1 Item #2, #4 & #5 include mounting screws



A SLICE Fire & Rescue Cutting System

ARCAIR SLICE COMPLETE PACK

Catalog No. 63-991-002

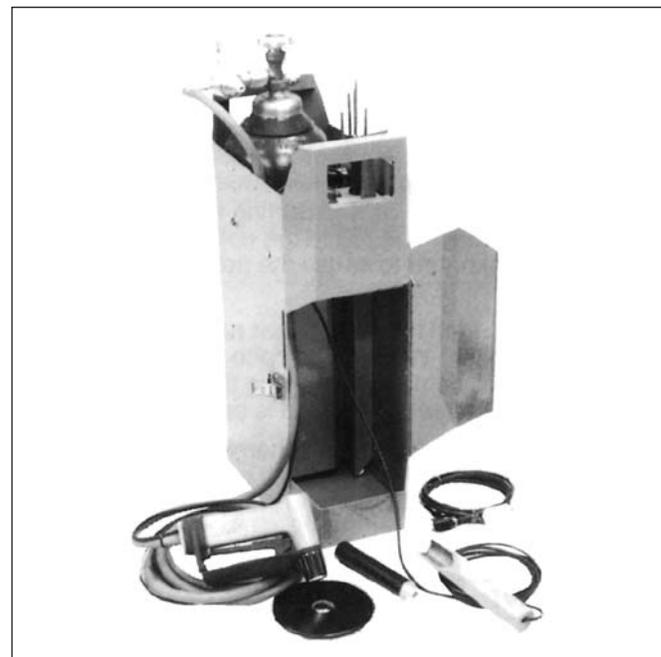


The **SLICE Complete Pack** comes in an aluminum carrying case with everything needed to quickly complete an exothermic cutting job. This model lends itself well to the emergency type cutting situation where seconds count. With this unit you get the torch, rods, striker, 12-volt battery with charger, 6" collet extension and shield, regulator and an empty 55 cubic foot oxygen bottle. The compact size case has a storage compartment with a hinged door for parts storage during transportation. This unit weighs 75 lbs. (34 kg) (with cylinder) and measures 25" x 15-3/4" x 8" (63.5cm x 38cm x 20cm).

SLICE COMPLETE PACK PARTS LIST

Catalog No. 63-991-002

DESCRIPTION	CATALOG NO.
SLICE Pack Complete 120 VAC/60Hz	63-991-002
SLICE Pack Complete 220 VAC/50Hz	63-991-005
Case Assembly	94-134-034
Battery Box Assembly	96-076-021
SLICE Torch Assembly	03-003-006
Striker Assembly	72-012-002
1/4" Cutting Rods (Qty. 25)	43-049-002
Collet Extension Assembly	94-168-023
1/4-20 x 1-1/4" Screw (2 Req'd.)	97-192-158
Spacer (2 Req'd.)	94-802-209
10" Rubber Tie Down	94-861-003
Oxygen Regulator	94-698-084
Oxygen Cylinder 55 Cu. Ft.	94-208-002
Charging Cable, 120VAC/60 HZ	96-130-297
Charging Cable, 220VAC/50 HZ	96-130-296
Outfit Wrench	94-960-063
Outfit Wrench	94-960-064
Instruction Manual	89-250-845



TIPS FOR USING SLICE EXOTHERMIC CUTTING EQUIPMENT

TIPS FOR CUTTING

Cutting procedures will vary from job to job. Study the cutting rates chart for specific cutting speeds.

Normal cutting is done by using a drag technique. Once the rod is in contact with the piece to be cut, drag the rod in the direction of the cut. If the operator can't see the kerf, the speed of cut is too fast. If the rod is being used too rapidly the progress of the cut is too slow and the rod is being used without cutting. REMEMBER, the cutting rods consume as long as the oxygen is flowing. Maintain the proper travel speed at all times. NOTE: Use a sawing motion when material to be cut is thicker than 1-1/2 to 2 inches to ensure a complete melt through.

Use a smooth motion to complete the cut. Be careful not to hit nearby material with the rod when cutting in "close quarters." After completing the cut, release the oxygen control lever in the handle. THE CUTTING ROD WILL CONTINUE TO BURN AS LONG AS OXYGEN IS SUPPLIED. Hold the torch safely away from you until the rod cools.

TIPS FOR PIERCING SURFACES

The SLICE Torch can be used to pierce solids. Special procedures must be used when piercing. When piercing, use a collet extension (and shield). This extension adds life to the torch and hand shield, and greatly improves operator safety and comfort. Always hold the torch at arm's length and wear plenty of protective clothing, eye and ear protection. Cutting rods can get stuck inside the pierced hole. If possible, remove the cutting rod from the hole before releasing the oxygen lever.

With any thermal cutting equipment blowback is most likely to occur when the user is piercing holes. Cutting rods may burn unevenly. Slowly swirl the cutting rod as it enters a pierced hole. Cutting rods may burn out on the sides. Correct the problem by removing the cutting rod from the pierce point, shut the oxygen off, and replace the cutting rod.

To pierce follow these steps:

- Strike cutting rod on striker.
- Hold torch at arm's length.
- Keep the cutting rod at a 90° angle (perpendicular) to the pierce point.
- Slowly push cutting rod in at pierce point until you're at proper depth or until you've achieved burn through.

The pierce procedure is also used to cut concrete. By piercing a series of holes where a user wants to cut concrete, the concrete becomes easier to fracture. This helps reduce the time it would take to actually cut the concrete.

OXYGEN USAGE

This cutting process uses standard industrial grade oxygen to support the exothermic reaction and to remove the molten metal. All SLICE equipment uses standard oxygen fittings. The most commonly recommended operating pressure is 80 psi. Applications such as cutting material sections 3" and thicker might require higher operating pressures. Pressures as low as 40 psi have been used to perform operations such as washing off rivet heads and scarfing out small cracks for repair.

The oxygen consumption rate for the SLICE cutting rods at 80 psi is 7 to 7.5 cfm for the 1/4" diameter cutting rods and 11 to 12 cfm for the 3/8" diameter cutting rods. This rate will vary if a different operating pressure is used.

ROD BURNTIME

Listed are the approximate burntimes for the various SLICE rod diameters and lengths:

- 1/4" X 22" ————— 40 - 45 seconds
- 1/4" X 44" ————— 80 - 90 seconds
- 3/8" X 18" ————— 30 - 35 seconds
- 3/8" X 36" ————— 60 - 70 seconds

APPLICATION DATA

The best techniques for the SLICE equipment will change from job to job. The enclosed charts present the results of extensive testing of the SLICE Torch. Four things contribute to good cutting -

- 1) Electrical current.
- 2) Type of material being cut
- 3) Environmental conditions.
- 4) Experience of the operator(s).

These data result from studies of the first two (2) items in this list. Since data were collected in a LABORATORY, actual results obtained will vary because of changes in the environment. Too, these tests were conducted by highly experienced users. The way in which you use the SLICE Torch will also cause your results to vary.

In any application, some adjustments in operating conditions are necessary. The charts are presented only as a guideline. Results will vary. You can approximate these results by using the data presented as a starting point, then adjusting for your job.

Here is a sample of some cutting rates that can be obtained using the SLICE Equipment. Cutting rates in this chart were obtained using 80 PSI oxygen pressure, battery ignition (no power cutting) and 1/4" x 22" cutting rods. These cutting rates will vary when using different rods, when cutting with power or using a different oxygen pressure. This chart does not represent all materials SLICE will cut nor all thicknesses used in fabrication. When cutting composite materials or metals not listed, locate the listed type that most closely matches the metal to be cut. This information is only meant as a reference to the efficiency and versatility that a user can realize using the SLICE Equipment.

CUTTING RATES						
MATERIAL BEING CUT	THICKNESS		CUT/IN ROD		CUT SPEED	
	IN.	CM	IN.	CM	IN/MIN	CM/MIN
CARBON STEEL	1/8	.318	2.25	5.7	72	183
	1/4	.635	1.50	3.8	52	132
	3/8	.953	1.38	3.5	42	106
	1/2	1.27	1.25	3.2	35	89
STAINLESS STEEL	3/4	1.91	0.75	1.9	22	56
	1/8	.318	2.00	5.1	65	165
ALUMINUM	1/4	.635	1.13	2.9	36	91
	3/8	.953	1.75	4.4	58	147
	3/4	1.91	1.25	3.2	38	97
			0.75	1.9	23	58

This data is the result of averaging lab tests. The actual results will vary.

**SLICE EQUIPMENT PRODUCT LINE
PARTS LISTS**

ITEM	UTILITY PACK	BATTERY PACK		CORDLESS STRIKER		INDUSTRIAL PACK	COMPLETE PACK	
		120 VAC	220 VAC	120 VAC	220 VAC		120 VAC	220 VAC
Tool Box, Case, Cart	63-991-026 94-134-049	63-991-003 94-134-047	63-991-007 94-134-047	63-991-032 94-134-047	63-991-033 94-134-047	63-991-021 92-090-202	63-991-002 94-134-034	63-991-005 94-134-034
Torch	03-003-001	03-003-006	03-003-006	03-003-008	03-003-008	03-003-001	03-003-006	03-003-006
Striker	72-012-002	72-012-002	72-012-002	—	—	72-012-002	72-012-002	72-012-002
Cordless Igniter	—	—	—	72-012-007	72-012-007	—	—	—
Extension	94-168-023	94-168-023	94-168-023	94-168-023	94-168-023	94-168-023	94-168-023	94-168-023
Shield	94-777-111	94-777-111	94-777-111	94-777-111	94-777-111	94-777-111	94-777-111	94-777-111
Coupling	94-173-016	94-173-016	94-173-016	94-173-016	94-173-016	—	—	—
Clamp (Red)	96-168-035	—	—	—	—	96-168-035	—	—
Clamp (Black)	96-168-036	—	—	—	—	96-168-036	—	—
Instruction Manual	89-250-845	89-250-845	89-250-845	89-250-845	89-250-845	89-250-845	89-250-845	89-250-845
Rods, 1/4" x 22"	—	25 uncoated	25 uncoated	25 uncoated	25 uncoated	43-049-002	25 uncoated	25 uncoated
Battery Box Assy.	—	96-076-021	96-076-021	—	—	—	96-076-021	96-076-021
Charging Cable	—	96-130-297	96-130-296	—	—	—	96-130-297	96-130-296
Battery Charger	—	—	—	96-076-034	96-076-036	96-156-003	—	—
O ₂ Regulator Assy.	—	—	—	—	—	94-698-084	94-698-084	94-698-084
Wrench	—	—	—	—	—	94-960-064	94-960-064	94-960-064
Wrench	—	—	—	—	—	94-960-063	94-960-063	94-960-063
O ₂ Cylinder 55 cu/ft	—	—	—	—	—	—	94-208-002	—
ACCESSORIES								
3/8" Conversion Kit	94-463-032	94-463-032	94-463-032	94-463-032	94-463-032	94-463-032	94-463-032	94-463-032
3/8" Collet Chuck	94-158-045	94-158-045	94-158-045	94-158-045	94-158-045	94-158-045	94-158-045	94-158-045
Gloves	94-351-002	94-351-002	94-351-002	94-351-002	94-351-002	94-351-002	94-351-002	94-351-002
Harness Assy.	—	—	—	—	—	—	94-463-042	94-463-042
10' Cable/Hose Ext.	96-130-294	96-130-294	96-130-294	96-130-294	96-130-294	96-130-294	96-130-294	96-130-294
Shade #5 Goggles	94-349-001	94-349-001	94-349-001	94-349-001	94-349-001	94-349-001	94-349-001	94-349-001
O ₂ Regulator Assy.	94-698-084	94-698-084	94-698-084	94-698-084	94-698-084	94-698-084	94-698-084	94-698-084
O ₂ Cylinder 55 cu/ft	—	—	—	—	—	—	94-208-002	94-208-002
Oxygen Auxiliary Case	94-134-046	94-134-046	94-134-046	94-134-046	94-134-046	94-134-046	94-134-046	94-134-046
Exten/Shield Assy	94-287-013	94-287-013	94-287-013	94-287-013	94-287-013	94-287-013	94-287-013	94-287-013
REPAIR PARTS								
Replacement Battery	—	96-076-018	96-076-018	—	—	—	96-076-018	96-076-018
Battery Box Assy.	—	96-076-022	96-076-023	—	—	—	96-076-022	96-076-023



A Global Cutting & Welding Market Leader™