



CC , CC "PLUS", CC "PLUS PLUS" BURNERS

HOW TO ORDER



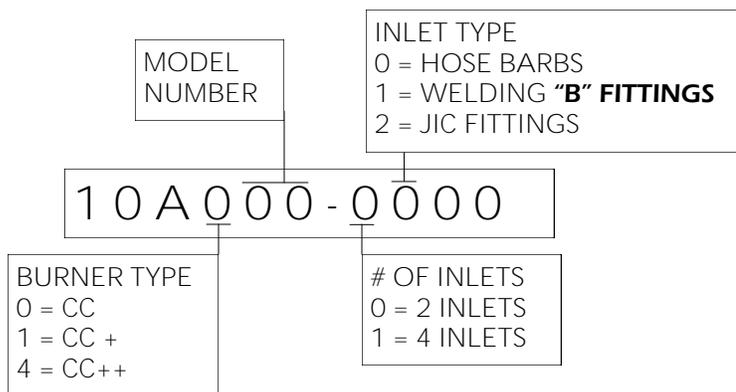
SS CC Burner with Rack & Pinion Base (Shown w/o heat shield)



CC "Plus" Burner with Optimizer and Ball & Post Base



CC "Plus Plus" Burner #5 Centerfire Tip and Rack & Pinion (old style heat shield)



Example: A CC "Plus" Burner with a #3 Centerfire Tip, Rack & Pinion Mount, four inlets, and welding hose connections would be:
10A153-1100

BURNER ASSEMBLIES	MODEL NUMBER
#5 Centerfire Tip Burner with Ball & Post	01
#5 Centerfire Tip Burner with Rack & Pinion	24
#3 Centerfire Tip Burner with Ball & Post	52
#3 Centerfire Tip Burner with Rack & Pinion	53
Hydrogen Burner with Ball & Post	02
Hydrogen Burner with Rack & Pinion	25

The Carlisle CC and CC "Plus" Burners are known as cannon style burners. Their large nose cone and tremendous flame output resembles the profile of a "cannon". These burners may be used with a mixture of oxygen and either natural gas, propane, or hydrogen (different tips are suggested depending on the gas used).

Both burners produce two distinctive flames, the centerfire (pre-mixed) and the outer fire (surface mixed). The centerfire, which has characteristics of a single ported tip, produces a pre-mixed flame similar to what may be achieved with a Carlisle hand torch. There are three types of centerfire tip. The first is the #5 centerfire tip. This tip

NOTE: The CC burner will produce **95,000 Btu's @ 5 psi natural gas**. The CC plus and RP series will produce **190,000 Btu's @ 5 psi natural gas**.

CAT-10A-1

Carlisle Machine Works, Inc.,
P.O. Box 746, 412 S. Wade Blvd., Bldg. #5, Millville, NJ 08332
Phone: (856) 825 - 0627 Fax: (856) 825 - 5510
Web Site: www.carlislemachine.com E-Mail: carlisle@carlislemachine.com
Toll Free In Continental US (800) 922-1167

has a larger orifice than the #3 centerfire tip and produces more BTU's. The #3 centerfire tip produces a more defined centerfire flame. The last type of centerfire tip is the hydrogen tip which is for use with hydrogen gas and has the same orifice size as the #5 centerfire tip. The #5 and #3 centerfire tips utilize piloting. The hydrogen tips are unpiloted.

The nose cone of the CC is manufactured from brass (stainless steel optional). The brass cone is threaded onto a machined mixer body. For fuel gas and oxygen supply, four metering valves are attached to the back of the mixer body. These valves are color coded for ease of use. The oxygen valves have green handles while the gas valves have red handles. On a standard CC these valves are interconnected by crossover attachments to limit the feed hose requirements to two. The CC series is also available with four separate inlets to allow for the use of foot controllers. The standard hose connections for this **configuration are welding hose "B" fittings**. Other connection types are available such as hose barbs and JIC connections. These connection types are explained further in the options and accessories section. For **ordering information, refer to the "How To Order" section**.

The CC series has several base styles available. The standard style is a Ball & Post mount. The Ball & Post utilizes the crescent shaped solid steel base with a ball and socket connection. The post that extends upward is threaded directly into the bottom of the CC body. This style offers a selective articulation. In order to adjust the angle of the head, the user manually releases a thumb screw in the cast iron base. When re-tightened, this provides positive burner positioning. The Rack & Pinion style mount utilizes a pinion gear to pivot the burner in an arc, offering greater range in positioning than the Ball & Post mount. **The user can adjust a knob on the side of the mounting device for quick, accurate positioning. The "Black Widow" base is also available for the CC Series. It can be adjusted vertically to accommodate the standing artist or a larger piece of artwork.** The head of the torch is also adjustable in a front-to-back motion (almost straight up or down) and turns 360°. Custom lathe mounts are also available as an option.

A Heat Exchanger is standard on the CC burner. Manufactured from aluminum, the Heat Exchanger dissipates heat from the burner body. The Heat Exchanger has cooling fins providing increased surface area for the transfer of heat.

On the CC+ and CC++ a Heat Shield manufactured out of perforated stainless steel is used or the Heat Exchanger. The heat shields protect the user from the inevitable heat buildup on the brass body, caused by the radiant heat from working large pieces of glass.

The CC++ also comes standard with the "Air Optimizer". This utilizes a compressed air "Bleed" into the fuel gases through (2) Venturi mixers mounted at the burner valve body. By premixing the gas, the optimizer decreases the BTU capacity per cubic foot of a specific fuel gas. This changes the dynamics and flame characteristics. With propane, the flame becomes more focused and narrow with the use of the optimizer. In order to produce the same amount of heat, a greater volume of gases must pass through the burner. As the flow increases, the gases travel faster. High gas velocity results in less heat transfer back into the burner, allowing the burner to operate cooler. Compressed air is less costly than compressed oxygen which **saves money too. The "Air Optimizer" is also available as an option on both the CC and CC+ burners.**

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CC SERIES OPTIONS AND ACCESSORIES



Connection Types w/
Hose

Connection Types

The CC burner series standardly comes equipped with a set of two hose adapters. These hose adapters also have crossovers attached to them so that they may feed both the inner and outer fires. Other types of hose connections **are available as demonstrated in the "How To Order" section.** The types of connections offered are hose adapters, welding hose connections, and JIC fittings. Carlisle will also remove the crossovers and supply the burner with four connections if specified.

Hosing

The CC burner series does not come with any hosing to connect the burner to the fuel supplies. Carlisle offers two **types of hosing for this use. The most common type of hosing is "T" grade welding hose that is** specially rated to support both natural gas and propane. This hosing has good flexibility and is moderately durable. The second type of hosing is the stainless steel braided hosing. This hosing is produced by taking a smooth bore Teflon hose and covering it with a braided stainless steel mesh giving it moderate flexibility and a heavy durability. The stainless steel braided hosing is connected to the burner via JIC fittings or can be adapted to work with welding hose fittings as an option.



Water Cooling

Water Cooling

The water cooling option keeps the CC Series Burners much cooler during operation. The water cooling option is installed by removing the heat exchanger and adding the water cooling coils **over top of the burner's outer casing.** This option can be purchased when the burner is manufactured. It can also be added on by the user.



Independent Pilot

Independent Pilot

The independent pilot option allows the user to have a standing pilot in front of the burner for lighting your CC Series Burners. The Independent Pilot consists of a copper tube run from the outer gas bypass valve, under the burner, and up to the face where the pilot would remain lit. The pilot is adjustable via a bypass valve that sits directly before the outer fire's gas valve. This option can be purchased with the burner or added on later, but the burner must be sent back for installation.

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Foot Controller

By utilizing a foot controller, users free their hands from the need to constantly meter the flame. The EL-2 (Bulletin 28A) is designed with two solenoid valves operated by a foot pedal. When the foot pedal is pressed, the solenoid valves for both the gas and oxygen will fully open. With the next press, the same valves will completely shut down. It is important to note that this type of foot controller can only be used with the outer fire (surface mixed) of the CC series burners. Using this type of control with the center fire (pre-mixed) would be sure to invite the chance for flashback.

Lathe Attachment

Some users of the CC Burner Series will find it desirable to mount the burner on the **“Carriage”, of a glassworking lathe. This requires the removal of the existing cast iron base and attachment to the lathe mount.** Different lathe manufacturers may have slightly different carriage configurations. We customize the lathe mount to accommodate these design differences. However, the mount provides for a low profile burner attachment with a slide bar as a base fixture. The slot in the sliding base allows for a high degree of adjustability from the mount.

Stainless Steel Nose Cone

The CC series standard units are equipped with a brass nose cone. For use with high heat reflection, Carlisle offers a stainless steel nose cone. The stainless steel has a higher resistance to degradation. Users will find that a stainless steel nose cone will give their CC series burner a longer life.



(Pictures shown are a Roger Parramore CC+ with an optimizer)



Air Optimizer

Standard on the CC++, the “Air Optimizer” is also available for the CC and CC+ as an option. The optimizer utilizes compressed **air “Bleed” into the fuel gases through (2)**

Venturi mixers mounted at the burner valve body. By premixing the gas, the optimizer decreases the BTU capacity per cubic foot of a specific fuel gas. This changes the dynamics and flame characteristics. With propane, the flame becomes more focused and narrow **with the use of the optimizer. This also helps reduce the “burning out” or “muting”** of more exotic colors. In order to produce the same amount of heat, a greater volume of gases must pass through the burner. As the flow increases, the gases travel faster. High gas velocity results in less heat transfer back into the burner, allowing the burner to operate cooler. Compressed air is less costly than compressed oxygen which saves money too.

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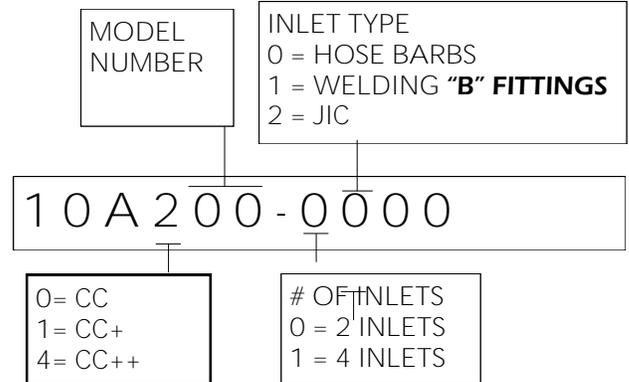


CC "PLUS" BURNER RP MODEL



CC "Plus" Burner RP Model
with #3 Centerfire Tip,
Rack & Pinion Base
Shown above
with optimizer added.

HOW TO ORDER



Example: A CC "Plus" RP for Hydrogen with Ball & Post Mount, four inlets, and JIC hose connections would be:
1 0 A 2 0 2 - 1 2 0 0

The CC "Plus" Burner RP Model is a product that came about by the suggestions of Roger Parramore, an artistic glassworker. The RP Model is a modified version of the standard CC "Plus" Burner. The modifications include a stainless steel nose cone that replaces the standard brass which reflects heat, reducing the build up of heat in the burner, and a sharper taper on the head, that gives it less of a surface area to absorb heat and allows the operator to work more closely to the burner tip. The RP Model is available with all of the options and accessories of the standard CC "Plus" Series.

Burner Assemblies	Model #
#5 Centerfire Tip Burner with Ball & Post	01
#5 Centerfire Tip Burner with Rack & Pinion	24
#3 Centerfire Tip Burner with Ball & Post	52
#3 Centerfire Tip Burner with Rack & Pinion	53
Hydrogen Burner with Ball & Post	02
Hydrogen Burner with Rack & Pinion	25



Face of CC "Plus"
Burner RP Model

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The CC plus and RP series will produce **190,000 Btu's @ 5 psi natural gas.**

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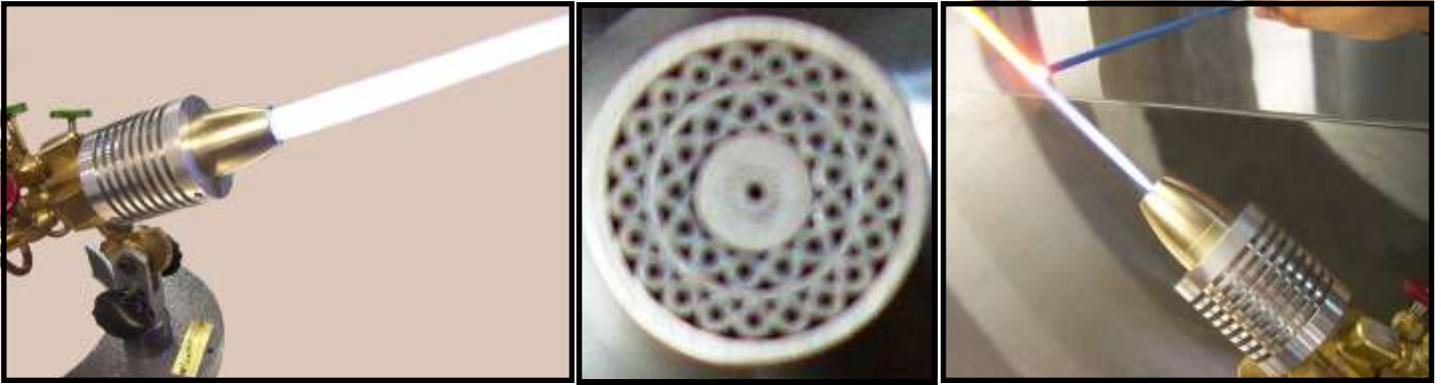


CATALOG NUMBER	OPTIONS AND ACCESSORIES
10A003-0000	CC Heat Exchanger
10A008-0000	CC Outer Gas Valve
10A009-0000	CC Inner Gas Valve
10A011-0000	CC Inner Oxygen Valve
10A010-0000	CC Outer Oxygen Valve
10A014-0002	CC Valve Replacement Kit
10A014-0001	CC Valve Replacement Kit w/Crossovers WH/A
10A012-0001	CC Gas Crossover WH/A
10A013-0001	CC Oxygen Crossover WH/A
10A012-0000	CC Gas Crossover H/A
10A013-0000	CC Oxygen Crossover H/A
10A051-0000	CC Coiled Water Cool
10A901-0000	CC Series Air Optimizer (Must be installed at Carlisle)
10A016-1000	CC SS Nose Cone (Must be installed at Carlisle)
10A901-0001	CC Optimizer Retrofit (Must be installed at Carlisle)
10A019-0000	CC Series Independent Pilot (Must be installed at Carlisle)
10A015-0000	CC Series Lathe Attachment with B&P
10A086-1000	CC 4 Inlet to 2 Inlet Conversion Hose Kit Welding Hose "B" Adapter
10A047-8001	CC 4 Inlet to 2 Inlet Conversion Hose Kit Hose Barb Adapter

CATALOG NUMBER	OPTIONS AND ACCESSORIES
10A103-0001	CC + Heat Exchanger
10A108-0000	CC + Outer Gas Valve
10A109-0000	CC + Inner Gas Valve
10A111-0000	CC + Inner Oxygen Valve
10A110-0000	CC + Outer Oxygen Valve
10A114-0000	CC + Valve Replacement Kit W/Crossovers
10A013-9000	CC 2 Inlet to 4 Inlet Kit WH/A
10A112-0001	CC + Gas Crossover WH/A
10A113-0001	CC + Oxygen Crossover WH/A
10A112-0000	CC+ GAS CROSSOVER H/A
10A113-0000	CC+ OXY CROSSOVER H/A
10A051-0001	CC + Coiled Water Cool
28A002-1001	CC Series EL-2 Gas Saver Foot Pedal
10A116-1000	CC + SS Nose Cone (Must be installed at Carlisle)
10A901-0003	CC+ Optimizer Retrofit (Must be installed at Carlisle)
10A020-0000	CC Series Rack & Pinion Assembly (does not include crescent base or mounting hardware)
10A021-0000	CC Series Ball & Post Assembly (W/O Post)Repair Kit
10A018-1000	CC Series New Style Crescent Base (does not include assembly)
10A047-8100	CC+ Or CC++, 4 To 2 Inlet Hose Conversion Kit - WH/A

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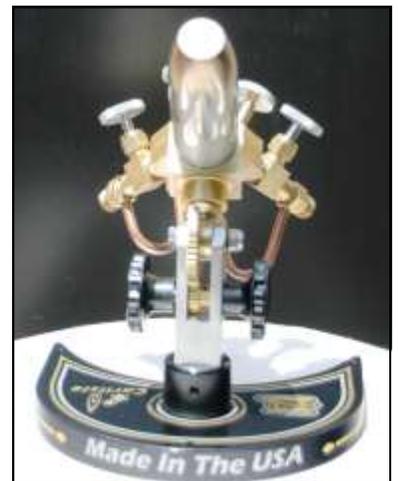




CC From full Flame to Small Flame

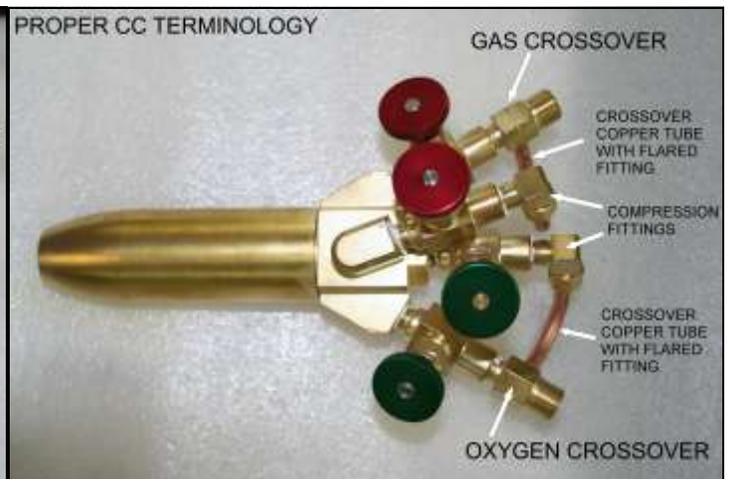
Hot Rod (Gauges are decorative only)

Made in USA



Have you always wished you could have a customized CC?

For Your Information



CARLISLE BURNERS CLEANING KIT



Kit includes 1 stainless steel wire brush, 1 wooden dowel and 3 different lengths of cleaning wire and instructions.

This kit will clean all Carlisle torches including the CC, Mini, Hellcat, Wildcat, CC+, CC++, Lucio and Black Widow.

**Cleaning Instructions included with kit
(10A000-1000)**

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