

# torches



**National Model 3A-B by Premier Industries**

Premix. Hand held torch accepts all premix National tips listed below. To make this torch into a bench torch, you will need a torch stand. See below, National TS191. Or, see the new National 6B which has a built in stand. Torch has 1/4" hose barbs to connect to the cut ends of hose. Tips and adapter sold separately. See below.



**National Model 3B-B by Premier Industries**

Premix. The same torch as the National 3A-B torch listed above, except the hoses connect to the torch using standard "B" size fittings. See below, 12 1/2' BB hose set. Tips and adapter sold separately. See below.



**National Model 3H Handtorch by Premier Industries**

The model 3H National Handtorch is specially designed for use with Hydrogen and Oxygen. The 3H comes with a 7" stainless steel elbow and has "A" size threaded welding hose connections.



**National Model 3C Handtorch by Premier Industries**

The Model 3C is specially designed for use with Acetylene and Oxygen. The 3C comes with a brass 4-1/2" elbow and has 'A' size threaded welding hose connections.



**TS191 Torch Stand**

Heavy duty torch stand converts the National 3A-B,3H, 3C or 3B-B into a bench torch.



**National Model 4B by Premier Industries**

The Model 4B is a nickel-plated industrial model torch. The 4B comes with a 1/4" NPT elbow and 1/4" barbs for hose connection.

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## torches cont.

**National Model 6B Bench Torch by Premier Industries**

Premix. Similar to the National 3A-B torch listed on page E1, except instead of being a hand held torch that requires a torch stand to use it as a bench torch, a swivel stand is built into the design. Torch has 1/4" hose barbs to connect to the cut ends of hose. Tips and adapter sold separately.

Recommended Tips:

- NP-0 thru NP-3 and 201 recommended for propane/natural gas & air/oxygen combinations. (Model 6B torch only)
- OX Series & HTM Series recommended for propane/natural gas and oxygen combinations. (Model 6B torch with NP-2 tip)

**National Model 8M by Premier Industries.**

The National 8M Torch used with natural gas or propane & oxygen offers versatility for anyone in glass working from bead making to quartz glass. The 8M allows both surface mix & pre-mix applications with the simple interchange of tips. The SM-5, SM-7 and SM-21 surface mix tips are easily interchangeable simply by twisting on & off (no wrenches!).

Pre-mix operation is just as easy with the PA-1 adapter allowing you to use all the National natural gas or propane & oxygen tips. The National 8M Torch comes standard with swivel ball mounting on a U-shaped base for stable yet comfortable operation.

(NOTE: Caution must be used when removing tips as tips heat up due to closeness of flame. Use appropriate gloves or tools when changing tips).

Recommended Tips: SM-5, SM-7, SM-21 (on page E5), or PA-1 Adapter and Premix Tips.

**PA-1 Adapter for 8M Torch**

The PA-1 Adapter is specifically designed for the 8M torch and allows the use of standard pre-mix natural gas or propane & oxygen tips with the 8M Torch.

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**OX Series Single Orifice Tips - Fuel/Oxygen**

OX series tips produce sharp, high temperature flames. Very effective for soldering, brazing, etc. on small parts where quick spot heat is essential.

OX-00	.020 diameter
OX-0	.032 diameter
OX-1	.042 diameter
OX-2	.055 diameter
OX-3	.070 diameter
OX-4	.082 diameter
OX-5	.100 diameter

**SOX Series Single Orifice Tips - Fuel/Oxygen**

SOX series tips are the same as OX series tips in a stainless steel version.

SOX-1	.042 diameter
SOX-2	.055 diameter
SOX-3	.070 diameter
SOX-4	.082 diameter
SOX-5	.100 diameter



**HTM Series Multiple Orifice Tips - Fuel Oxygen Tips**

HTM series tips have multiple orifices and are available in four sizes.

HTM-0	7 orifice .031 diameter, 6 on .180 bolt circle
HTM-1	9 orifice .040 diameter, 8 on .180 bolt circle
HTM-2	9 orifice .049 diameter, 8 on .180 bolt circle
HTM-3	9 orifice .055 diameter, 8 on .180 bolt circle

**HTS Series Multiple Orifice Tips - Fuel Oxygen Tips**

HTS series tips are the same HTM tips in a stainless steel version.

HTS-1	9 orifice .040 diameter, 8 on .180 bolt circle
HTS-2	9 orifice .049 diameter, 8 on .180 bolt circle

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# tips cont.



### N Series Tips - Propane/Natural Gas & Air

Type N tips are the most economical to operate. Flames adjust from soft brush to sharp concentrated heat of high intensity. Used for soldering, brazing, melting, casting, etc. For direct use on the National Fuel/Air hand torch.

N-0	.562 dia. Grid with .065 dia. Center
N-1	.562 dia. Grid with .095 dia. Center
N-2	.689 dia. Grid with .156 dia. Center
N-3	.898 dia. Grid with .187 dia. Center
N-4A	.898 dia. Grid with .265 dia. Center
N-6	1.247 dia. Grid with .390 dia. Center



### HT & HTC Series Multiple orifice HUSH Tips - Fuel/Oxygen

HT and HTC series tips have smaller orifices than other tips which give the HT and HTC tips a quieter, tighter burning pattern.

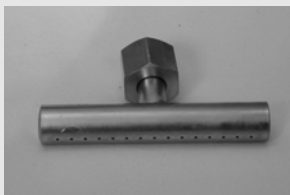
HT-0	7 orifice .025 diameter, on .093 bolt circle
HT-1	12 orifice .025 diameter, on .160 bolt circle
HT-2	19 orifice .025 diameter, on .263 hexagon pattern
HT-3	31 orifice .025 diameter, 6 on .353 diameter pattern
HTC-0	HT-0 tip with .031 diameter center orifice
HTC-1	HT-1 tip with .039 diameter center orifice

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NB-2 Bell Tip shown on Torch

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# tips cont.



### RB Series Tips

The RB series tips have one linear row of orifices ranging from 3/4" to 6" long. These tips feature swivel nut connection for 360° orientation on elbow. The RB tips are nickel plated brass and currently come in three sizes.

RB-0	3/4 inch
RB-2	2 inch
RB-6	6 inch - DISCONTINUED. PLEASE SEE BELOW.
RB-6N	Ribbon burner, 41 orifices in a row 6" long (for Natural gas and propane only)
RB-62	Ribbon burner, 57 orifices in 2 rows 6" long (for Natural gas and propane only)

### Tips for National Model 8M Torch



#### SM-5 Small Surface Mix Tip

The SM-5 provides a small concentrated flame for detail work. It has 7 oxygen holes and 6 slots to supply natural gas or propane fuel.



#### SM-7 Medium Surface Mix Tip

The SM-7 has 7 oxygen holes and 6 slots to supply natural gas or propane fuel. With the 8M Torch it offers a wide range of adjustment for different glassworking tasks.



#### SM-21 Large Surface Mix Tip

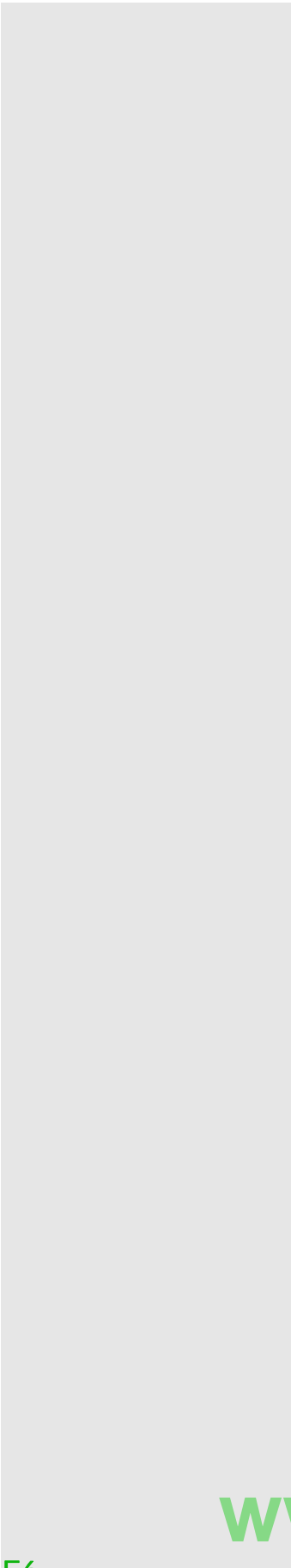
The SM-21 Tip has 29 holes supplying oxygen and a slotted pattern. It produces the largest flame of the surface mix tips.



#### TW-10 Adapter

The TW-10 adapter allows the use of two national Tips at the same time. The arms on the adapter are made of annealed copper and allows custom positioning of tips by the user.

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