



To assist you in selecting the consumable series that's compatible with your MIG gun, please consult the reference chart below:

## CONSUMABLES AND MIG GUN SERIES COMPATIBILITY CHART

	Centerfire™	Quik Tip™	Tregaskiss™ TOUGH LOCK™	Tregaskiss™ TOUGH ACCESS™
BTB MIG Guns	✓	✓	✓	SP
TGX™ MIG Guns	CK	CK	✓	✓
W-Gun™ MIG Guns	✓	✓		
T-Gun MIG Guns (water-cooled)			SP	
Bernard FILTAIR™ Fume Extraction Series	✓	✓		
Dura-Flux™ with Replaceable Power Cable Liner		✓		
Dura-Flux with Fixed Cable Liner	✓			

GUIDE: ✓ Compatible  
 SP Compatible, but may require special parts. Check Spec Sheet for details.  
 CK Compatible, but requires conversion kit

Are you looking for a particular feature or option in your consumable series? Please see the comparison chart below:

## CONSUMABLES COMPARISON CHART

	Centerfire™	Quik Tip™	Tregaskiss™ TOUGH LOCK™	Tregaskiss™ TOUGH ACCESS™
Standard-Duty	✓	✓	✓	✓
Heavy-Duty	✓	✓	✓	✓
"Drop in" Contact Tip (no threads)	✓			
Threaded Contact Tips		✓	✓	✓
Extra Heavy-Duty Tips Available			✓	
Tapered Tips Available	✓	✓	✓	✓
Chrome Zirconium Tips Available			✓	✓
Threaded Nozzles	✓	✓	✓	
Slip-on Nozzles		✓	✓	✓
Nozzle has Built-in Spatter Shield	✓			
Competitive Conversion Parts Available	✓	✓	✓	
Compact Size - Hard to Access Welds				✓
Taper Lock - Tip to Diffuser/Head	✓	✓	✓	✓
Taper Lock - Diffuser/Head to Neck			✓	

# Centerfire™ Series

## Contact Tips, Nozzles, Diffusers

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Centerfire™ Contact Tip, Nozzle and Diffuser shown on Q-Gun™ MIG Gun



**Centerfire™ Contact Tips, Nozzles and Diffusers are easy-to-use and high performing.** They provide better arc starts, less spatter and more consistent welds - and also last up to three times longer than competitive brands.

### All Consumables are Not Created Equal.

It's important to choose longer lasting consumables. They can make the difference between repeated consumable replacement and rework, or more arc time and better bottom line.

**Centerfire Contact Tips are non-threaded** and stay in place by hand-tightening the nozzle. They change over without tools for quick, easy replacement after burn back.

**Centerfire Contact Tips remain centered** even after hard use to ensure consistent weld quality.

**Centerfire Contact Tips have a tapered base** to improve conductivity and reduce heat for better weld quality.

**Centerfire Contact Tips can be rotated 360°** to create new wear surfaces and extended tip life.

**Centerfire Contact Tips are machined to the highest quality** for the smoothest performance.

**Centerfire Nozzles have a built-in spatter shield** that smooths and concentrates gas flow for less weld oxidation and contamination.

**Centerfire Nozzles allow fixed tip positioning** at flush, 1/8" and 1/4" recess and 1/8" extension for consistent welds.

**Centerfire Diffusers are protected by spatter shield in nozzle** for extra long life.

**Centerfire Consumables are suitable for use in heavy-duty and light commercial applications** and fit most competitive brand guns to enhance performance and allow standardization of one contact tip and nozzle for all gun brands to minimize inventory management costs.

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Pride and without  
Compromise in the **USA**

### Bernard

A Division of Miller Electric Mfg. Co.  
449 West Corning Road, Box 667  
Beecher, Illinois 60401 USA

Phone: 1-855-MIGWELD (644-9353) (US & Canada)  
+1-519-737-3030 (International)

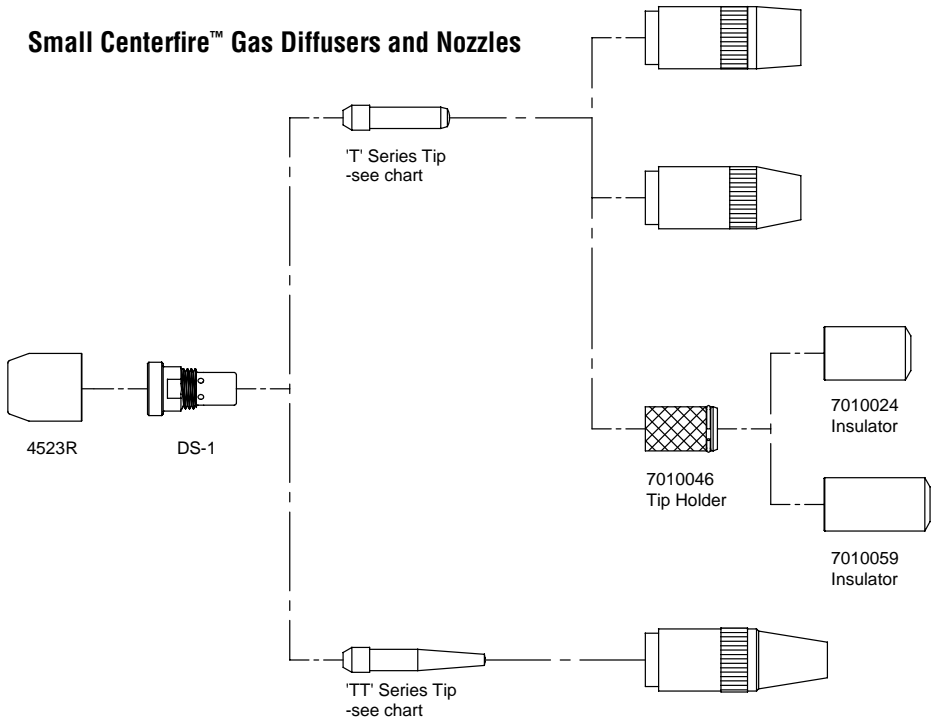
Fax: 708-946-6726

For more information, visit us at [BernardWelds.com](http://BernardWelds.com)

**BERNARD™**

# Available Parts

## Small Centerfire™ Gas Diffusers and Nozzles



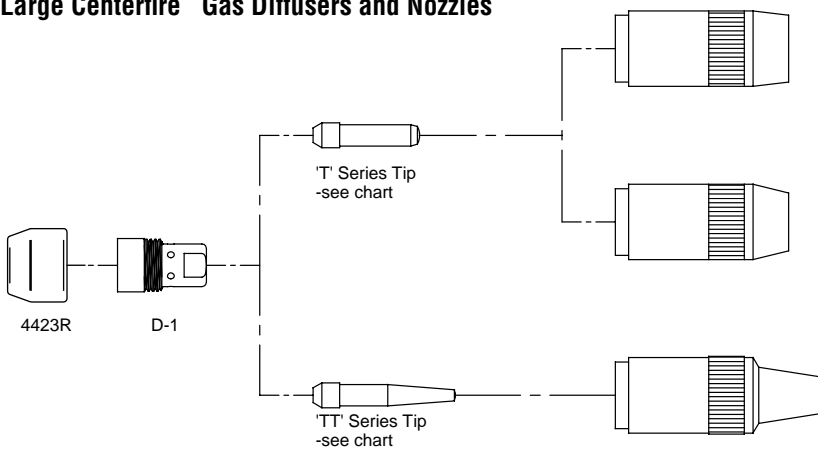
NS-5800C (5/8" I.D., Flush, Copper)  
 NS-5818C (5/8" I.D., 1/8" Rec., Copper)  
 NS-5800B (5/8" I.D., Flush, Brass)  
 NS-5818B (5/8" I.D., 1/8" Rec., Brass)

NS-1218C (1/2" I.D., 1/8" Rec., Copper)  
 NS-1200B (1/2" I.D., Flush, Brass)  
 NS-1218B (1/2" I.D., 1/8" Rec., Brass)

NS-FLX Self-Shielded Conversion Kit  
 (Includes tip holder and both insulators)

NST-3800B (3/8" I.D., Flush, Brass)  
 NST-3818B (3/8" I.D., 1/8" Rec., Brass)  
 NST-38XTB (3/8" I.D., 1/8" Extension, Brass)

## Large Centerfire™ Gas Diffusers and Nozzles

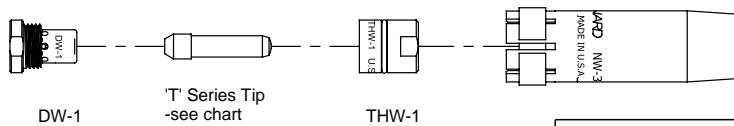


N-3400C (3/4" I.D., Flush, Copper)  
 N-3418C (3/4" I.D., 1/8" Rec., Copper)  
 N-3414C (3/4" I.D., 1/4" Rec., Copper)  
 N-3418B (3/4" I.D., 1/8" Rec., Brass)  
 N-3414B (3/4" I.D., 1/4" Rec., Brass)

N-5800C (5/8" I.D., Flush, Copper)  
 N-5818C (5/8" I.D., 1/8" Rec., Copper)  
 N-5814C (5/8" I.D., 1/4" Rec., Copper)  
 N-5818B (5/8" I.D., 1/8" Rec., Brass)  
 N-5814B (5/8" I.D., 1/4" Rec., Brass)

NT-3800C (3/8" I.D., Flush, Copper)

## Water-Cooled Centerfire™ Gas Diffusers and Nozzles



NW-3418C (3/4" I.D., 1/8" Rec., Copper)  
 NW-3414C (3/4" I.D., 1/4" Rec., Copper)

T' Series Tip	
T-023	.023" (.6 mm)
T-030	.030" (.8 mm)
T-035	.035" (.9 mm)
T-039	.039" (1.0 mm)
T-045	.045" (1.2 mm)
T-052	.052" (1.4 mm)
T-062	1/16" (1.6 mm)
T-072	.072" (1.8 mm)
T-078	5/64" (2.0 mm)
T-094	3/32" (2.4 mm)
T-109	7/64" (2.8 mm)
T-125	1/8" (3.2 mm)

TT' Series Tip	
TT-023	.023" (.6 mm)
TT-030	.030" (.8 mm)
TT-035	.035" (.9 mm)
TT-039	.039" (1.0 mm)
TT-045	.045" (1.2 mm)
TT-052	.052" (1.4 mm)
TT-062	1/16" (1.6 mm)

# Installation Instructions

## Standard Installation

1. Install insulator cap over neck.
2. Trim liner to between 5/8" and 3/4" beyond neck thread.
3. Torque diffuser onto neck to approx. 12ft-lbs.
4. Insert contact tip into diffuser.
5. Thread nozzle onto diffuser / contact tip, and tighten firmly by hand.

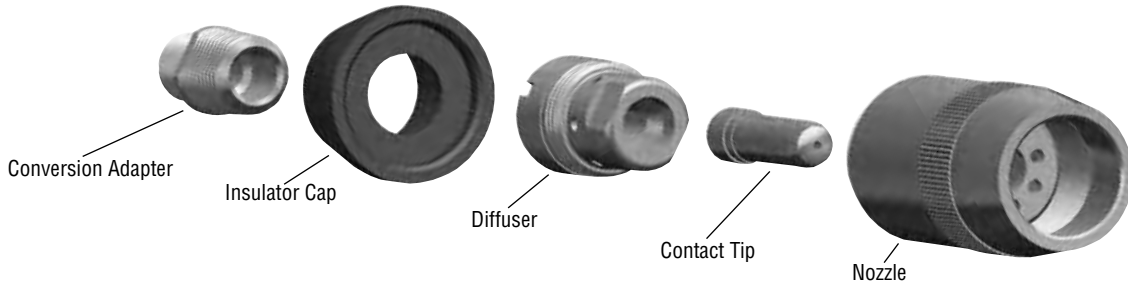
### Helpful Tip

The base of every Centerfire gas diffuser has a 3/4" diameter, and can be used as a liner trimming guide.



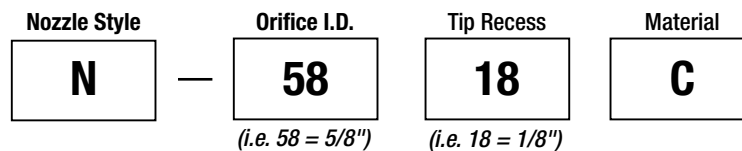
## Installation with Conversion Adapter

1. Install conversion adapter.
2. Install insulator cap over conversion adapter.
3. Trim liner to between 5/8" and 3/4" beyond adapter thread.
4. Torque diffuser onto adapter to approx. 12ft-lbs.
5. Insert contact tip into diffuser.
6. Thread nozzle onto diffuser / contact tip, and tighten firmly by hand.



# Centerfire™ Nozzle Part Number

Use a Centerfire Nozzle part number to identify its specifications. The part number below represents a large Centerfire Nozzle manufactured with 5/8" I.D., 1/8" tip recess and copper.



- Available nozzle styles: N = nozzle large, NT = nozzle large tapered, NS = nozzle small, NST = nozzle small tapered
- Contact Tip recess XT = 1/8" extension beyond end of nozzle
- Available nozzle materials: B = brass and C = copper

# Conversion Series

Simplify parts management and improve performance by converting all of your MIG Guns to Centerfire™ Contact Tips, Nozzles and Diffusers. Find your MIG Gun make and model on the left, then follow the chart to the right for parts needed to upgrade.

Gun Manufacturer	Gun Model	Desired Nozzle / Diffuser Style	Adapter	Insulator	Diffuser	Contact Tip	Nozzle
Bernard™	Q-Gun, EZ Feed II, H, F	Small	Not Required	4323R	DS-1	Select from table on page 2	Select from table on page 2 <i>Note: use small nozzles with small diffusers and large nozzles with large diffusers</i>
		Large	Not Required	10012	D-1		
Binzel®	ALPHA 2, ALPHA 2 Automatic	Small	Not Required	4323R	DS-1B2		
		Large	N/A	N/A	N/A		
	ALPHA 3, ALPHA 3 Automatic	Small	Not Required	4323R	DS-1B3		
		Large	Not Required	4323R	D-1B3		
	ALPHA 4, ALPHA 4 Automatic	Small	N/A	N/A	N/A		
		Large	Not Required	4323R	D-1B4		
Lincoln®	100L	Small	1380020	4323R	DS-1		
		Large	N/A	N/A	N/A		
	Magnum 250	Small	1380005	4323R	DS-1		
		Large	1380005	10012	D-1		
	Magnum 300, Magnum 400	Small	Not Required	4323R	DS-1T		
		Large	Not Required	4423R	D-1T		
	Magnum 500	Small	1380017	4323R	DS-1		
		Large	1380017	10012	D-1		
	Magnum Pro 300	Small	N/A	N/A	N/A		
		Large	Not Required	4323R	D-1LP3		
Miller®	XR Edge	Small	1380018	4323R	DS-1		
		Large	1380018	10012	D-1		
	XR30A, XR-W, Roughneck, Python	Small	Not Required	4323R	DS-1		
		Large	Not Required	10012	D-1		
	Alumapro	Small	Not Required	4323R	DS-1AP		
		Large	Not Required	10012	D-1AP		
OXO™	APX	Small	Not Required	4323R	DS-1		
		Large	Not Required	10012	D-1		
Tregaskiss™	Former TOUGH GUN™ Semi-Automatic Series or the former Bernard T-Gun™	Small	Not Required	4323R	DS-1T		
		Large	Not Required	4423R	D-1T		
Tweco®	160 Mini Mig	Small	1380020	4323R	DS-1		
		Large	1380020	10012	D-1		
	No. 1	Small	1380019	4323R	DS-1		
		Large	1380019	10012	D-1		
	No. 2	Small	1380005	4323R	DS-1		
		Large	1380005	10012	D-1		
	No. 3, No. 4, Tuff-n-Lite, Supra XT (HD Consumables)	Small	Not Required	4323R	DS-1T		
		Large	Not Required	4423R	D-1T		
	Spraymaster 450	Small	Not Required	4323R (2 Required)	DS-1T		
		Large	Not Required	4423R	D-1T		
	No. 5	Small	N/A	N/A	N/A		
		Large	Not Required	4423R	D-1T-5		
	ELC 250, ELC 350, Spraymaster 250, Spraymaster 350	Small	1380012	4323R	DS-1		
		Large	1380012	10012	D-1		
ELC 450, EL 450, EL 600, Supra XT (EL Consumables)	Small	1380017	4323R	DS-1			
	Large	1380017	10012	D-1			

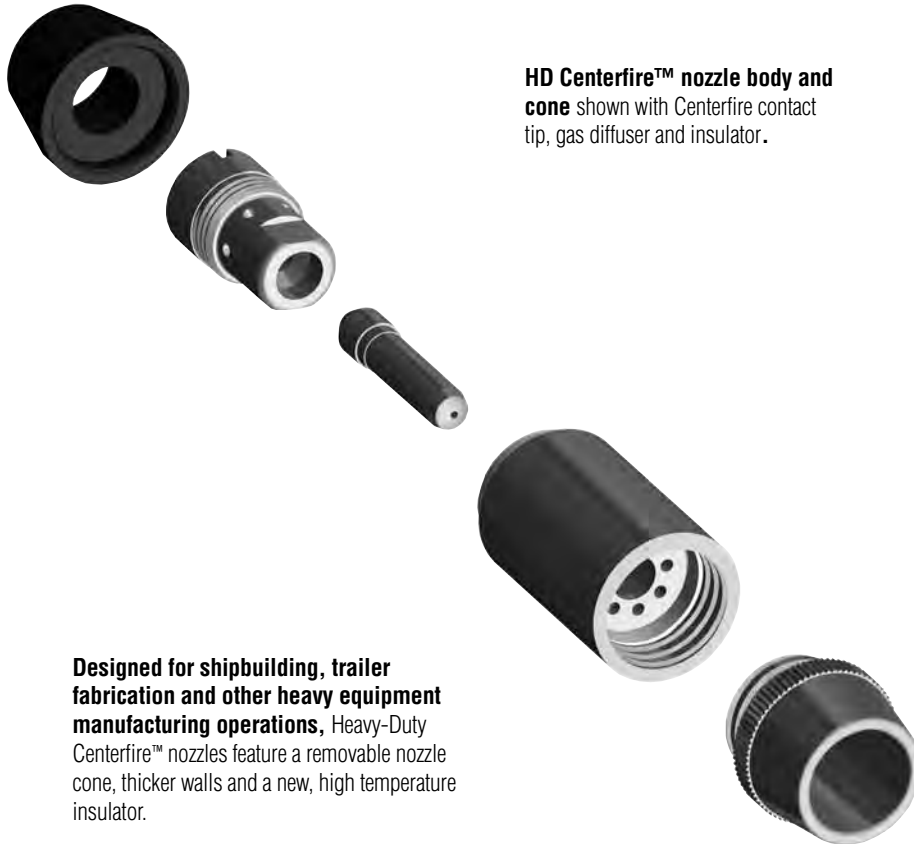
Centerfire™ Contact Tips, Nozzles, and Diffusers are manufactured by Bernard™. Bernard™, Miller®, Tregaskiss™, Centerfire™, Q-Gun™ and T-Gun™ are trademarks of Illinois Tool Works, Inc. Other brands mentioned are for reference only and are the registered trademarks of their respective companies. Illinois Tool Works, Inc. is not affiliated with these other companies.



# HD Centerfire™ Series

## Nozzles

Issued Sept. 2014 • Index No. SPEC HDCF-1.2



HD Centerfire™ nozzle body and cone shown with Centerfire contact tip, gas diffuser and insulator.

**Designed for shipbuilding, trailer fabrication and other heavy equipment manufacturing operations,** Heavy-Duty Centerfire™ nozzles feature a removable nozzle cone, thicker walls and a new, high temperature insulator.

### All Consumables are Not Created Equal.

It's important to choose longer lasting consumables. They can make the difference between repeated consumable replacement and rework, or more arc time and better bottom line.

**Increased wall thickness and new insulating material** reduce number of changeovers caused by heat degradation.

**Removable nozzle cone lowers downtime and consumables cost** by allowing operators to replace only the cone, the most frequently damaged part of the nozzle, without removing and replacing the entire nozzle and contact tip.

**Nozzle cleaning made easy** - removable cone allows greater access to nozzle body for spatter removal.

**Built-in spatter guard produces a calmer gas flow** for improved weld puddle protection.

**Available in a variety of configurations,** with several nozzle orifices and tip recesses.

**Fully compatible with standard Centerfire contact tips, gas diffusers and insulating caps.**

**Fit most competitive brand guns** to enhance performance and allow standardization of one contact tip and nozzle for all gun brands to minimize inventory management costs.

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Pride and without  
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### Bernard

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449 West Corning Road, Box 667  
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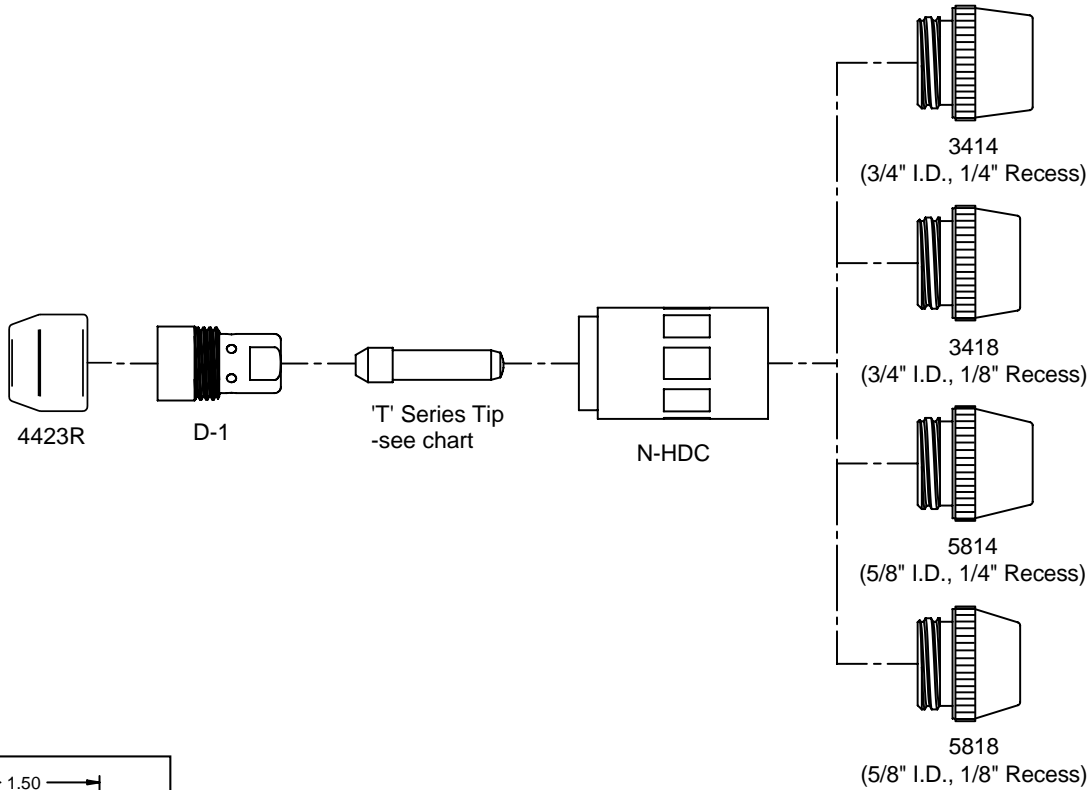
Phone: 1-855-MIGWELD (644-9353) (US & Canada)  
+1-519-737-3030 (International)

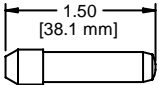
Fax: 708-946-6726

For more information, visit us at [BernardWelds.com](http://BernardWelds.com)



# Available Parts



 'T' Series Tip	
T-023	.023" (.6 mm)
T-030	.030" (.8 mm)
T-035	.035" (.9 mm)
T-039	.039" (1.0 mm)
T-045	.045" (1.2 mm)
T-052	.052" (1.4 mm)
T-062	1/16" (1.6 mm)
T-072	.072" (1.8 mm)
T-078	5/64" (2.0 mm)
T-094	3/32" (2.4 mm)
T-109	7/64" (2.8 mm)
T-125	1/8" (3.2 mm)

- Couple the HD Centerfire nozzle body with an HD Centerfire nozzle cone to form a complete HD Centerfire nozzle.
- One nozzle body and one nozzle cone required, order separately.
- Use HD Centerfire nozzles with standard Centerfire 4423R insulator caps, D-1 gas diffusers and 'T' series contact tips.

## HD Centerfire™ Nozzle Part Number

Use an HD Centerfire nozzle cone's part number to identify its specifications. The part number below represents an HD Centerfire nozzle cone manufactured with 5/8" I.D. and 1/4" tip recess. The HD Centerfire nozzle body and all nozzle cone's are made of copper.

<b>Nozzle Body</b>		<b>Nozzle Cone</b>
<b>N-HDC</b>	+	<b>5814</b>
<i>(i.e 58 = 5/8" Orifice I.D.)</i> <i>(i.e. 14 = 1/4" Tip Recess)</i>		

# Competitor Conversion

Simplify parts management and improve performance by converting all of your MIG guns to HD Centerfire nozzles and standard Centerfire tips and diffusers. Find your gun make and model on the left, then follow the chart to the right for parts needed to upgrade.

Gun Manufacturer	Gun Model	Gas Diffuser Style	Adapter	Insulator	Gas Diffuser	Contact Tip	Nozzle
Bernard™	Q-Gun, EZ Feed II, G, H, F	Large	Not Required	10012	D-1	Select from table on left	Select from drawing on left
Binzel®	ALPHA 2, ALPHA 3, ALPHA 2 Automatic, ALPHA 3 Automatic	Large	Not Required	4323R	D-1B3 D-1B4		
Lincoln®	Magnum 250	Large	1380005	10012	D-1		
	Magnum 300, Magnum 400	Large	Not Required	4423R	D-1T		
Miller®	XR Edge	Large	1380018	10012	D-1		
	XR30A, XR-W, M-25, Roughneck, Python	Large	Not Required	10012	D-1		
OXO®	APX	Large	Not Required	10012	D-1		
Tregaskiss™	Former TOUGH GUN™ Semi-Automatic Series or former Bernard T-Gun™ Series	Large	Not Required	4423R	D-1T		
Tweco®	160 Mini Mig	Large	1380020	10012	D-1		
	No. 1	Large	1380019	10012	D-1		
	No. 2	Large	1380005	10012	D-1		
	No. 3, No. 4, Tuff-n-Lite, Supra XT (HD Consumables), Spraymaster 450	Large	Not Required	4423R	D-1T		
	No. 5	Large	Not Required	4423R	D-1T-5		
	ELC 250, ELC 350, Spraymaster 250, Spraymaster 350	Large	1380012	10012	D-1		
	ELC 450, EL 450, EL 600, Supra XT (EL Consumables)	Large	1380017	10012	D-1		

Centerfire™ nozzles, tips and gas diffusers are manufactured by Bernard. Bernard™ is a trademark of Illinois Tool Works, Inc. Other brands mentioned are for reference only and are the registered trade marks of their respective companies. Illinois Tool Works, Inc. is not affiliated with these other companies.

## Installation Instructions

### Standard Installation

1. Install insulator cap over neck.
2. Trim liner to between 5/8" and 3/4" beyond neck thread.
3. Torque diffuser onto neck to approx. 12ft-lbs.
4. Insert tip into gas diffuser.
5. Thread nozzle body onto gas diffuser/ tip, and tighten firmly by hand.
6. Thread nozzle cone onto nozzle body, and tighten firmly by hand.

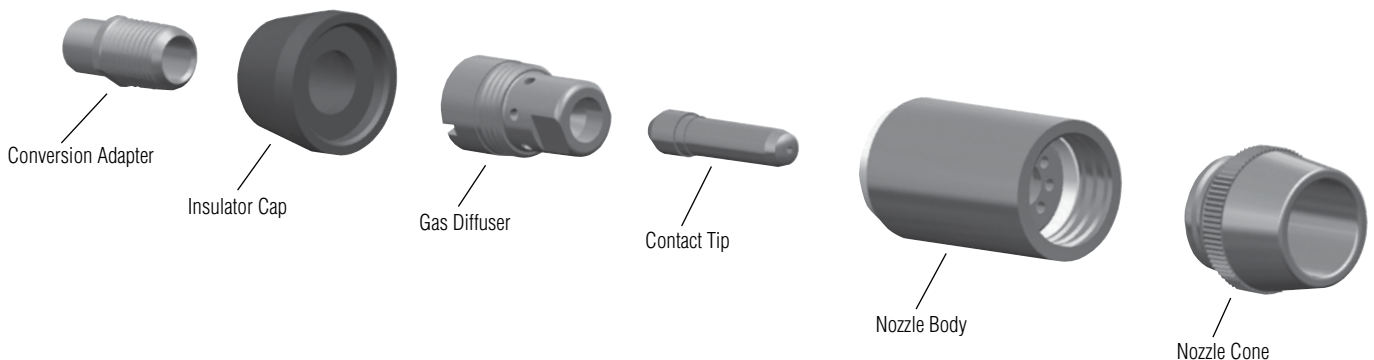
### Helpful Tip

The base of every Centerfire gas diffuser has a 3/4" diameter, and can be used as a liner trimming guide.



### Installation with Conversion Adapter

1. Install conversion adapter.
2. Install insulator cap over conversion adapter.
3. Trim liner to between 5/8" and 3/4" beyond adapter thread.
4. Torque diffuser onto adapter to approx. 12ft-lbs.
5. Insert tip into gas diffuser.
6. Thread nozzle body onto gas diffuser/ tip, and tighten firmly by hand.
7. Thread nozzle cone onto nozzle body, and tighten firmly by hand.





# Notes