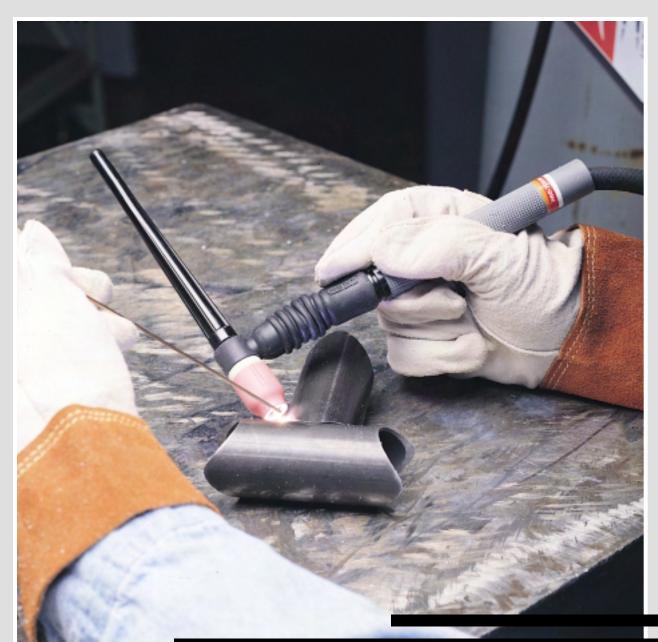
## MAGNUM® PRO-TORCH™ TIG TORCH AND CABLE ASSEMBLIES



For Semiautomatic Air and Water-Cooled TIG Welding



## PRO-TORCH™ TIG TORCHES



Lincoln Electric's new and expanded line of Pro-Torch TIG torches provides a wide range of both air-cooled and water-cooled torches in various amperage ranges to meet the performance needs of the professional. The Pro-Torch TIG torches are available in industry standard sizes. In addition to the fixed head versions, Lincoln offers models with gas valves for use on machines that don't have gas solenoids, as well as flexible head models for the hard to reach welds.

The Pro-Torch torches are compatible with your existing stock of Magnum TIG torch expendable parts as well as with other industry standard major brands. For ease of interchangeability, industry reference numbers are listed in the expendable parts tables.

The Pro-Torch line offers the following professional features:

- Comfortable knurled handle for a non-slip sure grip for precise control.
- Flexible light weight torch cable.
- High quality construction for long life.

#### K1781 (PTA-9 and 9F)

Air-cooled TIG torch, rated 125 amps at 60% duty cycle.

The PTA-9F is equipped with a flexible head for easy maneuverability into tight places.

Tungsten Range: .020 - 1/8"
 (0.5 - 3.2mm)

• Cable Lengths: 12.5 or 25 ft.

## K1782 (PTA-17, PTA-17V and PTA-17F)

Air-cooled TIG torch, rated 150 amps at 60% duty cycle.

The PTA-17V is equipped with a valve for gas flow control.

The PTA-17F is equipped with a flexible head for easy maneuverability into tight places.

• Tungsten Range: .020 - 5/32" (0.5 - 4.0mm)

• Cable Lengths: 12.5 or 25 ft.

## K1783 (PTA-26, PTA-26V and PTA-26F)

Air-cooled TIG torch, rated 200 amps at 60% duty cycle. The PTA-26V is equipped with a valve for gas flow control.

The PTA-26F is equipped with a flexible head for easy maneuverability into tight places.

• Tungsten Range: .020 - 5/32" (0.5 - 4.0mm)

• Cable Lengths: 12.5 or 25 ft.

## K1785 (PTW-20)

Water-cooled TIG torch, rated 250 amps at 100% duty cycle.

• Tungsten Range: .020 - 1/8" (0.5 - 3.2mm)

• Cable Lengths: 12.5 or 25 ft.

## K1784 (PTW-18)

Water-cooled TIG torch, rated 350 amps at 100% duty cycle.

• Tungsten Range: .020 - 5/32"

(0.5 - 4.0 mm)

• Cable Lengths: 12.5 or 25 ft.

## WHAT YOU NEED TO GET STARTED

Along with your torch, you will need to purchase the following Magnum TIG Torch Accessories to begin welding:

#### **POWER CABLE ADAPTER**

This adapter connects torch hoses to the power source output stud. Three types are available: One for watercooled torches, one for small aircooled torches and one for large aircooled torches.

#### **HOOK-UP KIT**

These kits contain the necessary hoses and accessories to connect between your gas regulator, power source and water supply. Three are available: One for water-cooled torches, one for air-cooled torches with a handle valve and one for air-cooled torches without a handle valve.

#### **COLLETS\***

These hold the tungsten firmly in your torch. They are purchased according to tungsten size and must be used

with the proper corresponding collet bodies, or gas lens collet bodies.

## **☞ COLLET BODIES & GAS LENS COLLET BODIES\***

Collet bodies hold the collet and tungsten in place. Gas lens collet bodies are used where precise control of shielding gas flow is required.

#### **⇔ ALUMINA NOZZLES\***

These nozzles, made of a high temperature ceramic material, protect the collet body and direct the gas flow to the weld. Choose them according to the chart on this page, for your specific application.

#### **BACK CAP**

(For special applications only.) Each torch comes with one back cap which is sufficient for most applications. However, longer and shorter back caps are available for each torch when specific applications require them.

#### TUNGSTEN ELECTRODE

Your welding supplier can provide you with the proper electrode for your application. Use the chart listed below, as a guide for ordering the appropriate tungsten.

#### **MAGNUM PARTS KITS**

Magnum Parts Kits provide all the torch accessories you need to start welding. Parts Kits provide collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable box. Four kits are available for these torches: KP 507, KP 508, KP 509 and KP 510. See page 6, 10 and 11 for more information.

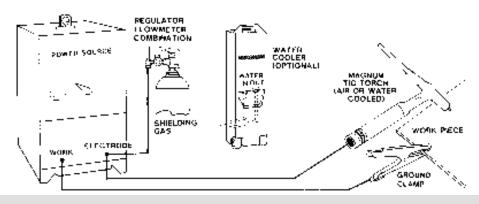
\*These accessories will need replacement periodically. It is recommended that when a given size is needed, more than one of that size be purchased.

#### TYPICAL CURRENT RANGES FOR TUNGSTEN ELECTRODES (1)

|   | DCEN (-)   | DCEP (+)   |   | AC   |  |  |   |
|---|--|--|---|--|--|--|---|
|   | (,   | 202. (.)   | Balance   | ed Wave  | Unbaland   | ed Wave  |   |
| Tungsten<br>Electrode<br>Diameter<br>in. (mm)                                     | 1%, 2%<br>Thoriated<br>Tungsten                                      | 1%, 2%<br>Thoriated<br>Tungsten                        | Pure<br>Tungsten  | 1%, 2%<br>Thoriated<br>Tungsten<br>Zirconiated                       | Pure<br>Tungsten   | 1%, 2%<br>Thoriated<br>Tungsten<br>Zirconiated                       | Alumina<br>Nozzle<br>Size                       |
| 0.020 (0.5)<br>0.040 (1.0)<br>1/16 (1.6)<br>3/32 (2.4)<br>1/8 (3.2)<br>5/32 (4.0) | 5 - 20<br>15 - 80<br>70 - 150<br>150 - 250<br>250 - 400<br>400 - 500 | (2)<br>(2)<br>10 - 20<br>15 - 30<br>25 - 40<br>40 - 55 | 10 - 20<br>20 - 30<br>30 - 80<br>60 - 130<br>100 - 180<br>160 - 240 | 5 - 20<br>20 - 60<br>60 - 120<br>100 - 180<br>160 - 250<br>200 - 320 | 5 - 15<br>10 - 60<br>50 - 100<br>100 - 160<br>150 - 210<br>200 - 275 | 5 - 20<br>15 - 80<br>70 - 150<br>140 - 235<br>225 - 325<br>300 - 400 | 4,5,6<br>4,5,6<br>5,6<br>6,7,8<br>6,7,8<br>8,10 |

<sup>(1)</sup> With Argon gas.

<sup>(2)</sup> DCEP (+) is not commonly used in these sizes.







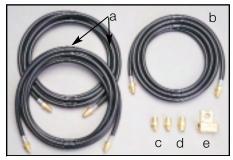
## **AIR-COOLED TIG TORCHES**

| Product<br>Number  | Maximum<br>Amperage<br>AC, DC-  | Ca<br>Len<br>ft.         |                                  | Number<br>of Cables | Tungsten<br>Range                |
|--|---------------------------------|--------------------------|----------------------------------|---------------------|----------------------------------|
| <b>PTA-9</b><br>K1781-1<br>K1781-2<br>K1781-3<br>K1781-4 | 125<br>125<br>125<br>125<br>125 | 12.5<br>12.5<br>25<br>25 | (3.8)<br>(3.8)<br>(7.6)<br>(7.6) | 1<br>2<br>1<br>2    | .020 - 1/8 in.<br>(0.5 - 3.2mm)  |
| <b>PTA-9F</b><br>K1781-5                                 | 125                             | 12.5                     | (3.8)                            | 1                   | .020 - 1/8 in.<br>(0.5 - 3.2mm)  |
| <b>PTA-17</b> K1782-1 K1782-2 K1782-3 K1782-4            | 150<br>150<br>150<br>150        | 12.5<br>12.5<br>25<br>25 | (3.8)<br>(3.8)<br>(7.6)<br>(7.6) | 1<br>2<br>1<br>2    | .020 - 5/32 in.<br>(0.5 - 4.0mm) |
| <b>PTA-17F</b><br>K1782-5                                | 150                             | 12.5                     | (3.8)                            | 1                   | 020 - 5/32 in.<br>(0.5 - 4.0mm)  |
| PTA-17V<br>K1782-6<br>K1782-7<br>K1782-8<br>K1782-9      | 150<br>150<br>150<br>150        | 12.5<br>12.5<br>25<br>25 | (3.8)<br>(3.8)<br>(7.6)<br>(7.6) | 1<br>2<br>1<br>2    | .020 - 5/32 in.<br>(0.5 - 4.0mm) |
| <b>PTA-26</b> K1783-1 K1783-2 K1783-3 K1783-4            | 200<br>200<br>200<br>200        | 12.5<br>12.5<br>25<br>25 | (3.8)<br>(3.8)<br>(7.6)<br>(7.6) | 1<br>2<br>1<br>2    | .020 - 5/32 in.<br>(0.5 - 4.0mm) |
| <b>PTA-26F</b><br>K1783-5                                | 200                             | 12.5                     | (3.8)                            | 1                   | .020 - 5/32 in.<br>(0.5 - 4.0mm) |
| PTA-26V K1783-6 K1783-7 K1783-8 K1783-9                  | 200<br>200<br>200<br>200<br>200 | 12.5<br>12.5<br>25<br>25 | (3.8)<br>(3.8)<br>(7.6)<br>(7.6) | 1<br>2<br>1<br>2    | .020 - 5/32 in.<br>(0.5 - 4.0mm) |

## **WATER-COOLED TIG TORCHES**

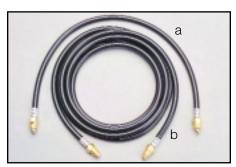
| Product<br>Number                   | Maximum<br>Amperage<br>AC, DC- | 1          | ble<br>igth<br>(m) | Number<br>of Cables | Tungsten<br>Range                |
|-------------------------------------|--------------------------------|------------|--------------------|---------------------|----------------------------------|
| <b>PTW-18</b><br>K1784-1<br>K1784-2 | 350<br>350                     | 12.5<br>25 | (3.8)<br>(7.6)     | 3<br>3              | .020 - 5/32 in.<br>(0.5 - 4.0mm) |
| PTW-20<br>K1784-3<br>K1784-4        | 250<br>250                     | 12.5<br>25 | (3.8)<br>(7.6)     | 3<br>3              | .020 - 1/8 in.<br>(0.5 - 3.2mm)  |

## HOOK-UP KITS



KP504 (For PTW-18 and PTW-20)

| Qty.         | Part<br>No.<br>(Industry Ref.) | Description                                   |
|--------------|--------------------------------|---|
| <b>2</b> (a) | S19558-4<br>(40V76)            | Water Hose<br>12.5 ft. (3.8m)                 |
| <b>1</b> (b) | S19558-1<br>(40V77)            | Gas Hose<br>12.5 ft. (3.8m)                   |
| <b>2</b> (c) | S19558-5                       | Water Adapter<br>Fittings<br>5/8 ft. (15.8mm) |
| <b>1</b> (d) | S19558-6<br>(11N18)            | Water Hose<br>Coupler                         |
| <b>1</b> (e) | S19257-1<br>(45V11)            | Power Cable<br>Adapter                        |



KP505 (For PTA-9, PTA-9F, PTA-17, PTA-17F, PTA-26 and PTA-26F)

| Qty.         | Part<br>No.<br>(Industry Ref.) | Description  |
|--------------|--------------------------------|--|
| <b>1</b> (a) | S19558-2                       | Gas Hose<br>18 in. (457mm)<br>(From solenoid<br>valve to power<br>cable adapter) |
| 1 (b)        | S19558-1<br>(40V77)            | Gas Hose<br>12.5 ft. (3.8m)  |



KP-506 (For PTA-17V and PTA-26V)

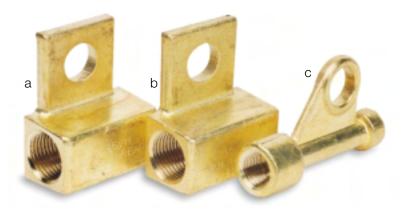
| Qty.         | Part<br>No.<br>(Industry Ref.) | Description   |
|--------------|--------------------------------|---|
| <b>1</b> (a) | S19558-1                       | Gas Hose<br>12.5 ft. (3.8m)<br>(with 5/8-18<br>right hand male<br>fittings) |

## POWER CABLE ADAPTERS

These adapters connect torch hoses to the power source output stud. Three types are available: One for water-cooled torches, one for small air-cooled torches, and one for large air-cooled torches.

|   | Part<br>No. | Industry<br>Reference<br>No. | Description  |
|---|-------------|------------------------------|--------------|
| а | S19257-1    | (45V11)                      | PTW-18 Torch |
|   | S19257-1    | (45V11)                      | PTW-20 Torch |

|   | Part<br>No. | Industry<br>Reference<br>No. | Description   |
|---|-------------|------------------------------|---------------|
| b | S19257-2    | (45V62)                      | PTA-26 Torch  |
|   | S19257-2    | (45V62)                      | PTA-26V Torch |
|   | S19257-2    | (45V62)                      | PTA-26F Torch |



Pictured above are the three types of Power Cable Adapters available: (a) S19257-1 Left Hand Threads (Water-cooled torches).

(b) S19257-2 Right Hand Threads (Large Air-cooled torches).

(c) S19257-3 (Small Air-cooled torches).

|   | Part<br>No. | Industry<br>Reference<br>No. | Description   |
|---|-------------|------------------------------|---------------|
| С | S19257-3    | (105Z57)                     | PTA-9 Torch   |
|   | S19257-3    | (105Z57)                     | PTA-17 Torch  |
|   | S19257-3    | (105Z57)                     | PTA-17V Torch |
|   | S19257-3    | (105Z57)                     | PTA-17F Torch |



## PARTS KITS

Magnum® Parts Kits provide all the torch accessories you need to start welding. Parts kits provide collets, collet bodies, a back cap, alumina nozzles and tungstens in a variety of sizes, all packaged in an easy to carry reclosable box. Four kits are available for these torches.



## **KP508**

(For PTA-17, PTA-17V and PTA-17F)

| KP507                  |
|------------------------|
| (For PTA-9 and PTA-9F) |

| Qty.  | Part<br>No. | Industry<br>Ref. No.               | Description    | Size<br>In. (mm)               |
|-------|-------------|------------------------------------|----------------|--------------------------------|
| 1     | S19513-3    | 41V24                              | Back Cap       | Long                           |
| 1     | S19497-2    | 13N21                              | Collet         | .040 (1.0)                     |
|       | S19497-3    | 13N22                              | Collet         | 1/16 (1.6)                     |
| 1     | S19499-2    | 13N26                              | Collet Body    | .040 (1.0)                     |
|       | S19499-3    | 13N27                              | Collet Body    | 1/16 (1.6)                     |
| 1 1 1 | S19368-1    | 13N08                              | Alumina Nozzle | 1/4 (6)                        |
|       | S19368-2    | 13N09                              | Alumina Nozzle | 5/16 (8)                       |
|       | S19368-3    | 13N10                              | Alumina Nozzle | 3/8 (10)                       |
| 1 1   |             | ectrode, 2% tho<br>ectrode, 2% tho |                | (1.0 x 178mm)<br>(1.6 x 178mm) |

| Qty.  | Part<br>No.                      | Industry<br>Ref. No.                               | Description  | Siz<br>In.           | ze<br>(mm)              |
|-------|----------------------------------|--|--|----------------------|-------------------------|
| 1     | S19514-2                         | 57Y04  | Back Cap   | Sh                   | ort                     |
| 1 1 1 | S19498-2<br>S19498-3<br>S19498-4 | 10N22<br>10N23<br>10N24                            | Collet<br>Collet<br>Collet                         | .040<br>1/16<br>3/32 | (1.0)<br>(1.6)<br>(2.4) |
| 1 1 1 | S19500-2<br>S19500-3<br>S19500-4 | 10N30<br>10N31<br>10N32                            | Collet Body<br>Collet Body<br>Collet Body          | .040<br>1/16<br>3/32 | (1.0)<br>(1.6)<br>(2.4) |
| 1 1 1 | S19367-6<br>S19367-5<br>S19367-4 | 10N50<br>10N49<br>10N48                            | Alumina Nozzle<br>Alumina Nozzle<br>Alumina Nozzle | 1/4<br>5/16<br>3/8   | (6)<br>(8)<br>(10)      |
| 1 1 1 | Tungsten Ele                     | ctrode, 2% tho<br>ctrode, 2% tho<br>ctrode, 2% tho | riated 1/16" x 7"                                  | (1.6 x 17            | 78mm)                   |

## KP509

(For PTW-18, PTA-26, PTA-26V and PTA-26F)

| Qty.  | Part<br>No.  | Industry<br>Ref. No. | Description    | Size<br>In. (mm) |  |
|-------|--|----------------------|----------------|------------------|--|
| 1     | S19514-2   | 57Y04                | Back Cap       | Short            |  |
| 1     | S19498-3   | 10N23                | Collet         | 1/16 (1.6)       |  |
| 1     | S19498-4   | 10N24                | Collet         | 3/32 (2.4)       |  |
| 1     | S19498-5   | 10N25                | Collet         | 1/8 (3.2)        |  |
| 1     | S19500-3   | 10N31                | Collet Body    | 1/16 (1.6)       |  |
| 1     | S19500-4   | 10N32                | Collet Body    | 3/32 (2.4)       |  |
| 1     | S19500-5   | 10N28                | Collet Body    | 1/8 (3.2)        |  |
| 1     | S19367-5   | 10N49                | Alumina Nozzle | 5/16 (8)         |  |
| 1     | S19367-4   | 10N48                | Alumina Nozzle | 3/8 (10)         |  |
| 1     | S19367-2   | 10N46                | Alumina Nozzle | 1/2 (12.5)       |  |
| 1 1 1 | Tungsten Electrode, 2% thoriated 1/16" x 7" (1.6 x 178mm) Tungsten Electrode, 2% thoriated 3/32" x 7" (2.4 x 178mm) Tungsten Electrode, 2% thoriated 1/8" x 7" (3.2 x 178mm) |                      |                |                  |  |

#### **KP510**

(For PTW-20)

| Qty.  | Part<br>No.   | Industry<br>Ref. No.    | Description  | Size<br>In. (mm)                      |  |
|-------|---|-------------------------|--|---------------------------------------|--|
| 1     | S19513-3  | 41V24                   | Back Cap   | Long                                  |  |
| 1 1 1 | S19497-3<br>S19497-4<br>S19497-5  | 13N22<br>13N23<br>13N24 | Collet<br>Collet<br>Collet                         | 1/16 (1.6)<br>3/32 (2.4)<br>1/8 (3.2) |  |
| 1 1 1 | S19499-3<br>S19499-4<br>S19499-5  | 13N27<br>13N28<br>13N29 | Collet Body<br>Collet Body<br>Collet Body          | 1/16 (1.6)<br>3/32 (2.4)<br>1/8 (3.2) |  |
| 1 1 1 | S19368-2<br>S19368-3<br>S19368-4  | 13N09<br>13N10<br>13N11 | Alumina Nozzle<br>Alumina Nozzle<br>Alumina Nozzle | 5/16 (8)<br>3/8 (10)<br>7/16 (11)     |  |
| 1 1 1 | Tungsten Electrode, 2% thoriated Tungsten Electrode, 2% thoriated Tungsten Electrode, 2% thoriated Tungsten Electrode, 2% thoriated 1/16" x 7" (1.6 x 178mm) 3/32" x 7" (2.4 x 178mm) 1/8" x 7" (3.2 x 178mm) |                         |  |                                       |  |

# EXPENDABLE PARTS

## Magnum® PTA-9, PTA-9F & PTW-20 TIG Torches

### **COLLET**



|        | Part<br>No. | Industry<br>Ref. No. | Tungsten<br>Diameter<br>In. (mm) |       |
|--------|-------------|----------------------|----------------------------------|-------|
| Collet | \$19497-1   | 13N20                | .020                             | (0.5) |
|        | \$19497-2   | 13N21                | .040                             | (1.0) |
|        | \$19497-3   | 13N22                | 1/16                             | (1.6) |
|        | \$19497-4   | 13N23                | 3/32                             | (2.4) |
|        | \$19497-5   | 13N24                | 1/8                              | (3.2) |

### **COLLET BODY**



|                | Part<br>No.   | Industry<br>Ref. No.                      | Tungsten<br>Diameter<br>In. (mm)    |   |
|----------------|---|---|-------------------------------------|---|
| Collet<br>Body | \$19499-1<br>\$19499-2<br>\$19499-3<br>\$19499-4<br>\$19499-5 | 13N25<br>13N25<br>13N27<br>13N28<br>13N29 | .020<br>.040<br>1/16<br>3/32<br>1/8 | (0.5)<br>(1.0)<br>(1.6)<br>(2.4)<br>(3.2) |

#### **ALUMINA NOZZLES**



|                   | Part<br>No.  | Industry<br>Ref. No.                               | Nozzle<br>Orifice<br>Diameter<br>In. (mm)                              | Size<br>(16th of<br>an inch) | Length              |
|-------------------|--|--|--|------------------------------|---------------------|
| Alumina<br>Nozzle | \$19368-1<br>\$19368-2<br>\$19368-3<br>\$19368-4<br>\$19368-5<br>\$19368-6 | 13N08<br>13N09<br>13N10<br>13N11<br>13N12<br>13N13 | 1/4 (6)<br>5/16 (8)<br>3/8 (10)<br>7/16 (11)<br>1/2 (12.5)<br>5/8 (16) | 4<br>5<br>6<br>7<br>8<br>10  | 1-5/32"<br>(29.3mm) |

#### GAS LENS COLLET BODIES



|                               | Part<br>No.   | Industry<br>Ref. No.                      | 1                                   | igsten<br>meter<br>(mm)                   | \      |
|-------------------------------|---|---|-------------------------------------|---|--------|
| Gas<br>Lens<br>Collet<br>Body | \$19501-1<br>\$19501-2<br>\$19501-3<br>\$19501-4<br>\$19501-5 | 45V41<br>45V42<br>45V43<br>45V44<br>45V45 | .020<br>.040<br>1/16<br>3/32<br>1/8 | (0.5)<br>(1.0)<br>(1.6)<br>(2.4)<br>(3.2) | _<br>/ |

#### ALUMINA GAS LENS NOZZLES



|                                  | Part<br>No.                                      | Industry<br>Ref. No.             | Nozzle<br>Orifice<br>Diameter<br>In. (mm)    | Size<br>(16th of<br>an inch) | Length         |
|----------------------------------|--|----------------------------------|--|------------------------------|----------------|
| Alumina<br>Gas<br>Lens<br>Nozzle | \$19370-1<br>\$19370-2<br>\$19370-3<br>\$19370-4 | 53N58<br>53N59<br>53N60<br>53N61 | 1/4 (6)<br>5/16 (8)<br>3/8 (10)<br>7/16 (11) | 4<br>5<br>6<br>7             | 1"<br>(25.4mm) |

## **BACK CAPS**



|              | Part<br>No.                      | Industry<br>Ref. No.    | Size                    |
|--------------|----------------------------------|-------------------------|-------------------------|
| Back<br>Caps | S19513-1<br>S19513-2<br>S19513-3 | 41V33<br>41V34<br>41V35 | Short<br>Medium<br>Long |

Parts shown are not actual size.



# EXPENDABLE PARTS

# Magnum® PTA-17, PTA-17V, PTA-17F, PTA-26, PTA-26V and PTA-26F TIG Torches Magnum® PTW-18 TIG Torch

## **COLLET**



#### **COLLET BODY**



## **ALUMINA NOZZLES**



#### GAS LENS COLLET BODIES



### ALUMINA GAS LENS NOZZLES



#### **BACK CAPS**



Parts shown are not actual size.

|        | Part<br>No. | Industry<br>Ref. No. | Tungsten<br>Diameter<br>In. (mm) |       |
|--------|-------------|----------------------|----------------------------------|-------|
| Collet | S19498-1    | 10N21                | .020                             | (0.5) |
|        | S19498-2    | 10N22                | .040                             | (1.0) |
|        | S19498-3    | 10N23                | 1/16                             | (1.6) |
|        | S19498-4    | 10N24                | 3/32                             | (2.4) |
|        | S19498-5    | 10N25                | 1/8                              | (3.2) |
|        | S19498-6    | 54N20                | 5/32                             | (4.0) |

|                | Part<br>No.  | · · · · · · · · · · · · · · · · · · ·               |   | ngsten<br>meter<br>(mm)                            |
|----------------|--|---|---|--|
| Collet<br>Body | S19500-1<br>S19500-2<br>S19500-3<br>S19500-4<br>S19500-5<br>S19500-6 | 13N25<br>13N25<br>13N27<br>13N28<br>13N29<br>406488 | .020<br>.040<br>1/16<br>3/32<br>1/8<br>5/32 | (0.5)<br>(1.0)<br>(1.6)<br>(2.4)<br>(3.2)<br>(4.0) |

|                   | Part<br>No.  | Industry<br>Ref. No.                               | Oi                                       | ozzle<br>rifice<br>meter<br>(mm)             | Size<br>(16th of<br>an inch) | Length               |
|-------------------|--|--|--|--|------------------------------|----------------------|
| Alumina<br>Nozzle | \$19367-6<br>\$19367-5<br>\$19367-4<br>\$19367-3<br>\$19367-2<br>\$19367-1 | 10N50<br>10N49<br>10N48<br>10N47<br>10N46<br>10N45 | 1/4<br>5/16<br>3/8<br>7/16<br>1/2<br>5/8 | (6)<br>(8)<br>(10)<br>(11)<br>(12.5)<br>(16) | 4<br>5<br>6<br>7<br>8<br>10  | 1-27/32"<br>(46.8mm) |

|                                   | Part<br>No.  | Industry<br>Ref. No.                               | 1   | ngsten<br>meter<br>(mm)                            |
|-----------------------------------|--|--|---|--|
| Gas<br>Lens<br>Collet<br>Body (1) | \$19502-1<br>\$19502-2<br>\$19502-3<br>\$19502-4<br>\$19502-5<br>\$19502-6 | 45V29<br>45V24<br>45V25<br>45V26<br>45V27<br>45V28 | .020<br>.040<br>1/16<br>3/32<br>1/8<br>5/32 | (0.5)<br>(1.0)<br>(1.6)<br>(2.4)<br>(3.2)<br>(4.0) |

|                                      | Part<br>No.   | Industry<br>Ref. No.                      | Or                                | ozzle<br>rifice<br>meter<br>(mm)     | Size<br>(16th of<br>an inch) | Length                   |
|--------------------------------------|---|---|-----------------------------------|--------------------------------------|------------------------------|--------------------------|
| Alumina<br>Gas<br>Lens<br>Nozzle (2) | \$19369-5<br>\$19369-4<br>\$19369-3<br>\$19369-2<br>\$19369-1 | 54N18<br>54N17<br>54N16<br>54N15<br>54N14 | 1/4<br>5/16<br>3/8<br>7/16<br>1/2 | (6)<br>(8)<br>(10)<br>(11)<br>(12.5) | 4<br>5<br>6<br>7<br>8        | 1"<br>(25.4mm)<br>1-1/8" |

11/16

(17)

|      | Part<br>No. | Industry<br>Ref. No. | Size  |  |
|------|-------------|----------------------|-------|--|
| Back | S19514-1    | 57Y02                | Long  |  |
| Cap  | S19514-2    | 57TY04               | Short |  |

54N19

S19369-6

(2) Note: Use of these Alumina Gas Lens Nozzles requires a S19515-8 (54N01) Gas Lens Insulator.

(28.5mm)

(1) Note: Use of these Gas Lens Collet Bodies requires a S19515-8 (54N01) Gas Lens

Insulator.

Short

## ADVANTAGE LINCOLN

#### **Performance**

- All Magnum® TIG torches are made from the highest quality materials to assure high performance and long life
- The unique non-slip handle contains horizontal ribs for comfort, easy maneuverability, and a no-slip grip.
- Select torches have a convenient gas control valve on the torch to quickly and easily control the shielding gas flow when a solenoid is not employed.
- Super-flex cables made of high quality vinyl and rubber reduce operator strain and fatigue.

#### Versatility

 Magnum TIG torches are used for a variety of applications in power plant construction, job shops, tool and die work, construction sites and production plants.

## OPTIONAL ACCESSORIES

#### **QUICK CONNECT PLUG**

For connection of PTA-9 or PTA-17 torches to Square Wave TIG 175. **Order S22529-1.** 

#### **WATER COOLERS**

Energy efficient, long life coolers.

Cooler 10, Order K877-1.

Cooler 20, Order K869-1.

Mounting Bracket, Order K559-2.

#### **AMPTROLS™**

Used to remotely control amperage. Foot Amptrol, Order K870. Hand Amptrols: Order K963-1 for use with PTA-9, PTA-17 and PTW-20 torches. Order K963-2 for use with PTA-26 and PTW-18 torches.

- Many of the TIG expendable parts are interchangeable with each other, ensuring maximum versatility across the torch family.
- Expendable parts are also interchangeable with some non-Magnum parts. Use the Industry Reference Numbers as a cross reference guide to order Magnum parts for the highest quality expendables available.

#### **Maximum Durability**

 TIG torch bodies are made from copper conductors and silicon rubber insulation ensuring durability and long life.



#### Gas Control Valve

PTA-17 and PTA-26 are available with a gas control valve for use on machines without gas solenoids.

Order PTA-17V or PTA-26V.



#### 1-PC. Vs. 2 PC. Cable Ends

- 1 Piece cables consist of a power conductor inside a rubber hose.
- 2 Piece cables consist of a separate power conductor and a braided gas hose.

#### Flexible Head Torches

PTA-9, PTA-17 and PTA-26 torches are available with flexible heads for easy manueverability in tight places.

Order PTA-9F, PTA-17F or PTA-26F



#### STRAIN RELIEF BOOT

For Quick Connect Plug. **Order M17255.** 



#### ZIPPERED CABLE COVERS

Optional zippered cable covers are available for 12.5 ft. (3.8m) and 25 ft. (7.6m) torches which protects the torch cables in high abrasion applications.

Order K918-1 (12.5 ft.) or K918-2 (25 ft.).

#### TWIST MATE™ TORCH ADAPTER

For connection of PTA-9 or PTA-17V torches (1 piece cable) to power sources with Twist Mate connections. **Order K960-1.** 

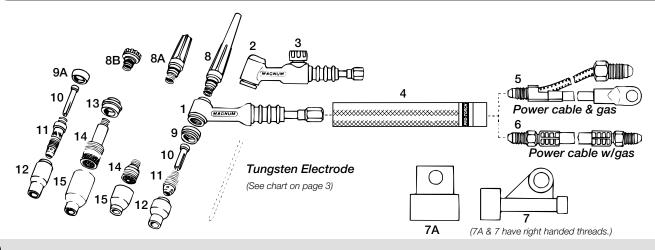




## REPLACEMENT PARTS

## AIR-COOLED REPLACEMENT PARTS

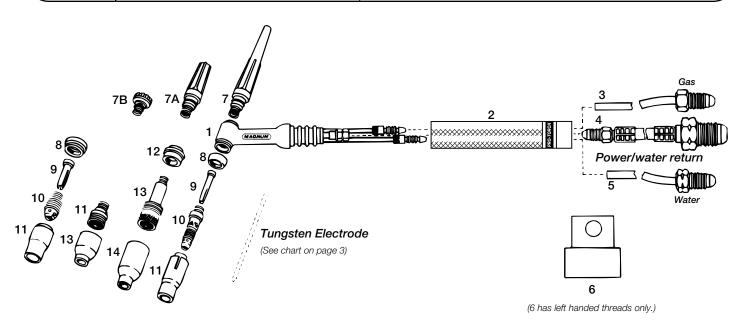
| Item                             | Part  | Industry | Description  |  |
|----------------------------------|---|----------|--|--|
| No.                              | No.   | Ref. No. |  |  |
| 1                                | S19258-1                                    |          | Torch body w/gaskets, PTA-9  |  |
| 1                                | S19259-1                                    |          | Torch body w/gaskets, PTA-17   |  |
| 1                                | S19260-1                                    |          | Torch body w/gaskets, PTA-26   |  |
| 2                                | S19259-2                                    |          | Torch body w/gaskets, PTA-17V  |  |
| 2                                | S19260-2                                    |          | Torch body w/gaskets, PTA-26V  |  |
| 3                                | S19515-1                                    | VS-2     | Valve knob w/"O" Ring, PTA-17V   |  |
| 3                                | S19515-2                                    | VS-1     | Valve knob w/"O" Ring, PTA-26V   |  |
| 4<br>4<br>4<br>4                 | S19511-1<br>S19511-2<br>S24930<br>S24931    | <br><br> | Torch handle, PTA-9, 17, 17V Torch handle, PTA-26, 26V Torch handle, PTA-9F, 17F Torch handle, PTA-26F   |  |
| 5                                | S19512-2                                    | 57Y01-2  | Power cable & gas, 12.5' (3.8m), PTA-9, 17, 17V  |  |
| 5                                | S19512-6                                    | 46V28-2  | Power cable & gas, 12.5' (3.8m), PTA-26, 26V   |  |
| 5                                | S19512-4                                    | 57Y03-2  | Power cable & gas, 25' (7.6m), PTA-9, 17, 17V  |  |
| 5                                | S19512-8                                    | 46V30-2  | Power cable & gas, 25' (7.6m), PTA-26, 26V   |  |
| 6                                | S19512-1                                    | 57Y01R   | Power cable w/gas, 12.5' (3.8m), PTA-9, 17, 17V  |  |
| 6                                | S19512-5                                    | 46V28R   | Power cable w/gas, 12.5' (3.8m), PTA-26, 26V   |  |
| 6                                | S19512-3                                    | 57Y03R   | Power cable w/gas, 25' (7.6m), PTA-9, 17, 17V  |  |
| 6                                | S19512-7                                    | 46V30R   | Power cable w/gas, 25' (7.6m), PTA-26, 26V   |  |
| 7                                | S19257-3                                    | 105Z57   | Power Cable Adapter, PTA-9, 17, 17V  |  |
| 7A                               | S19257-2                                    | 45V62    | Power Cable Adapter, PTA-26, 26V   |  |
| 8                                | S19513-3                                    | 41V24    | Back cap long w/"O" ring, 10 pack, PTA-9 Back cap long w/"O" ring, 10 pack, PTA-17, 17V, 26, 26V Back cap medium w/"O" ring, 10 pack, PTA-9 Back cap short w/"O" ring, 10 pack, PTA-9 Back cap short w/"O" ring, 10 pack, PTA-17, 17V, 26, 26V |  |
| 8                                | S19514-1                                    | 57Y02    |  |  |
| 8A                               | S19513-2                                    | 41V35    |  |  |
| 8B                               | S19513-1                                    | 41V33    |  |  |
| 8B                               | S19514-2                                    | 57Y04    |  |  |
| 9                                | S19515-6                                    | 598882   | Cup gasket, 10 pack, PTA-9   |  |
| 9A                               | S19515-7                                    | 18CG     | Cup gasket, 10 pack, PTA-17, 17V, 26, 26V  |  |
| 10<br>11<br>12<br>13<br>14<br>15 | SEE EXPENDABLE PARTS<br>ON PAGES<br>7 AND 8 |          | Collet Collet body Alumina nozzle Gas lens insulator Collet body gas lens Alumina nozzle gas lens  |  |



# REPLACEMENT PARTS

## WATER-COOLED REPLACEMENT PARTS

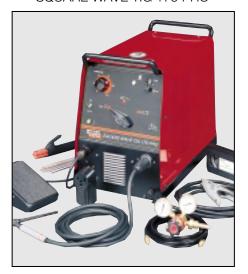
| Item                            | Part   | Industry | Description   |  |
|---------------------------------|--|----------|---|--|
| No.                             | No.  | Ref. No. |   |  |
| 1<br>1<br>2<br>2                | S19261-1<br>S19262-1<br>S19511-2<br>S19511-1 | <br><br> | Torch body w/gaskets, PTW-18 Torch body w/gaskets, PTW-20 Torch handle, PTW-18 Torch handle, PTW-20   |  |
| 3                               | S19512-17                                    | 40V75    | Gas hose, 12.5' (3.8m), PTW-18  |  |
| 3                               | S19512-11                                    | 45V09    | Gas hose, 12.5' (3.8m), PTW-20  |  |
| 4                               | S19512-15                                    | 40V64    | Power cable, 12.5' (3.8m), PTW-18   |  |
| 4                               | S19512-9                                     | 45V03    | Power cable, 12.5' (3.8m), PTW-20   |  |
| 4                               | S19512-18                                    | 41V29    | Power cable, 25' (7.6m), PTW-18   |  |
| 4                               | S19512-12                                    | 45V04    | Power cable, 25' (7.6m), PTW-20   |  |
| 5                               | S19512-16                                    | 40V74    | Water hose, 12.5' (3.8m), PTW-18  |  |
| 5                               | S19512-10                                    | 45V07    | Water hose, 12.5' (3.8m), PTW-20  |  |
| 5                               | S19512-19                                    | 41V32    | Water hose, 25' (7.6m), PTW-18  |  |
| 5                               | S19512-13                                    | 45V08    | Water hose, 25' (7.6m), PTW-20  |  |
| 6                               | S19257-1                                     | 45V11    | Power Cable Adapter, PTW-18, 20   |  |
| 7                               | S19514-1                                     | 57Y02    | Back cap long w/"O" ring, 10 pack, PTW-18 Back cap long w/"O" ring, 10 pack, PTW-20 Back cap medium w/"O" ring, 10 pack, PTW-20 Back cap short w/"O" ring, 10 pack, PTW-18 Back cap short w/"O" ring, 10 pack, PTW-20 |  |
| 7                               | S19513-3                                     | 41V24    |   |  |
| 7                               | S19513-2                                     | 41V35    |   |  |
| 7                               | S19514-2                                     | 57Y04    |   |  |
| 7                               | S19513-1                                     | 41V33    |   |  |
| 8                               | S19515-7                                     | 18CG     | Cup gasket, 10 pack, PTW-18   |  |
| 8                               | S19515-6                                     | 598882   | Cup gasket, 10 pack, PTW-20   |  |
| 9<br>10<br>11<br>12<br>13<br>14 | SEE EXPENDABLE PARTS ON PAGES 7 AND 8        |          | Collet Collet body Alumina nozzle Gas lens insulator Collet body gas lens Alumina nozzle gas lens   |  |





## REMEMBER OUR COMPLETE LINE OF POWER SOURCES...

#### SQUARE WAVE TIG 175 PRO



#### **SQUARE WAVE TIG 275**



#### **SQUARE WAVE TIG 355**



#### **ADVANTAGES**

- Designed for AC & DC TIG and stick welding.
- Full range capability from 12 to 175 amps.
- Comes as a complete package including TIG torch, all accessories needed for the TIG torch, a stick electrode holder, gas pressure regulator and flow gauge, hoses, cables, foot amptrol, starter pack of stick electrodes, and much more.
- 0.5 second preflow timer and 15 second afterflow timer.
- Built in Auto Balance<sup>™</sup>, high frequency arc starter, stabilizer and gas solenoid valve.
- Dimensions: 19.5 x 13.7 x 25.0" (495 x 348 x 635 mm)

See Lincoln publication E3.35 for more information.

#### **ADVANTAGES**

- Designed for AC & DC TIG and stick welding.
- Full range capability from 5 to 315 amps.
- Features TIG Pulser keys for pulsed welding applications on thin materials.
- Standard gas solenoid.
- Standard postflow timer.
- Built in Auto Balance<sup>™</sup>.
- Special encapsulating material is used on power assembly and connections and is torture chamber proven to protect against moisture and corrosive materials.
- Dimensions: 24.0 x 19.0 x 28.0"
   (610 x 483 x 711 mm)
   (Lift hook add 3.5" (90mm))

See Lincoln publication E3.41 for more information.

#### **ADVANTAGES**

- Designed for AC & DC TIG and stick welding.
- Full range capability from 2 to 400 amps.
- Can be used in applications using robotics and weld positioners.
- Standard water solenoid for use with Magnum<sup>®</sup> water coolers.
- 5 second preflow timer and 55 second afterflow timer.
- Built in Auto Balance<sup>™</sup>.
- Special encapsulating material is used on power assembly and connections and is torture chamber proven to protect against moisture and corrosive materials.
- Dimensions: 34.8 x 22.3 x 26.0" (884 x 565 x 660 mm) (Lift hook add 3.4" (87mm))

See Lincoln publication E3.50 for more information.

Customer Assistance Policy

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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