

# Hypertherm®

## Powermax105®

Professional-grade plasma metal cutting and gouging system for handheld cutting 1-1/4" and mechanized piercing 7/8".



| Capacity                 | Thickness | Cut speed |
|--------------------------|-----------|-----------|
| Cutting                  |           |           |
| Recommended              | 1-1/4"    | 20 ipm    |
|                          | 1-1/2"    | 10 ipm    |
| Severance (hand cutting) | 2"        | 5 ipm     |
| Pierce*                  | 7/8"      |           |

\* Pierce rating for handheld use or with automatic torch height control

| Capacity      | Metal removal rate | Groove profile  |
|---------------|--------------------|-----------------|
| Gouging       |                    |                 |
| Typical gouge | 21.7 lbs per hour  | .25" D x .29" W |

### Maximum productivity

- Finish jobs faster with cut speeds three times greater than oxyfuel on 1/2" mild steel.
- Spend less time on grinding and edge preparation due to superior cut and gouge quality.

### Low operating costs

- Reduce costs with long consumable life and more uptime.
- Electrode end-of-life detection protects the torch and workpiece from damage by automatically stopping power when the electrode is overused.

### Easy-to-use for cutting and gouging

- No need to change the air pressure. Smart Sense™ technology ensures that it is always correctly set.
- Drag cut at full output with a patented shield that reduces dross buildup for smoother cutting.
- Tackle different jobs with multiple, easy-to-use torch styles.

### Built and tested to withstand the harshest conditions

- Duramax® torches are designed for high-impact and heat resistance.
- SpringStart™ technology ensures consistent starting and a more reliable torch.
- Low maintenance for maximum uptime.

### Duramax standard torch styles

(for more torch options, see [www.hypertherm.com](http://www.hypertherm.com))



75° hand torch



15° hand torch

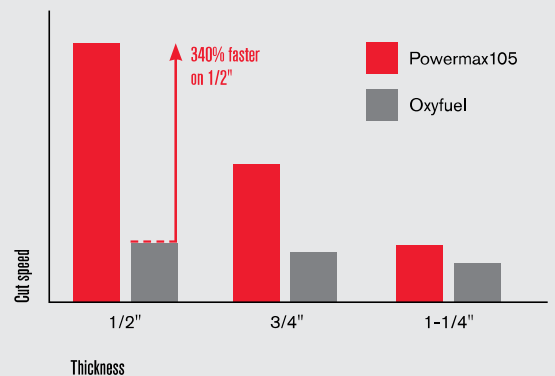


180° mini machine torch



180° full-length machine torch

### Relative cut performance on mild steel



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VINCENT INDUSTRIAL SUPPLIES

P.O. BOX 1249 WITBANK 1035      48 INDUSTRIA CRESCENT EXTENSION 25 WITBANK      TEL: 013 692 8151/2/3 FAX: 013 692 8154 dennis@vincentis.co.za

WEBSITE: <http://www.vincentis.co.za>

## Specifications

|  |  |
|--|--|
| Input voltages                           | 200–600 V, 3-PH, 50/60 Hz  |
| Kilowatt output                          | 16.8 kW  |
| Input current @ 16.8 kW                  | 200/208/240/480/600 V, 3-PH 58/56/49/25/22 A   |
| Output current                           | 30–105 A   |
| Rated output voltage                     | 160 VDC  |
| Duty cycle @ 104° F (40° C)              | 70% @ 105 A, 240 V, 3-PH<br>80% @ 105 A, 480–600 V, 3-PH<br>100% @ 94 A, 480–600 V, 3-PH<br>100% @ 88 A, 240 V, 3-PH |
| Open circuit voltage (OCV)               | 300 VDC  |
| Dimensions with handles                  | 23.3" D; 10.8" W; 20.0" H  |
| Weight w/25' torch                       | 100 lbs  |
| Gas supply                               | Clean, dry, oil-free air or nitrogen   |
| Recommended gas inlet flow rate/pressure | Cutting: 460 scfh, 7.7 scfm @ 85 psi<br>Gouging: 480 scfh, 8.0 scfm @ 70 psi   |
| Input power cable length                 | 10'  |
| Power supply type                        | Inverter – IGBT  |
| Engine drive requirement                 | 30 kW for full 105 A output  |
| Certifications                           | CSA-certified for use in the Americas and Asia, except China   |
| Warranty                                 | Power supplies have a 3-year warranty and torches a 1-year warranty  |



## Ordering information

Below are the standard system configurations, which include a power supply, torch and work cable.

|   | 75° hand torch |        | 75° and 15° hand torch |        | 180° full-length machine torch |                        |                              |                     |                        |                              | 180° full-length machine torch and 75° hand torch |
|---|----------------|--------|------------------------|--------|--------------------------------|------------------------|------------------------------|---------------------|------------------------|------------------------------|---|
|   | 25'            | 50'    | 25'                    | 50'    | 25'                            |                        |                              | 50'                 |                        |                              | 25'   |
| Power supplies  |                |        | without remote pendant |        | with remote pendant            | without remote pendant | with I/O cables (no pendant) | with remote pendant | without remote pendant | with I/O cables (no pendant) | with remote pendant                               |
| Standard power supply                                       | 059374         | 059375 |                        |        |                                |                        |                              |                     |                        |                              |   |
| Power supply with CPC port and voltage divider              | 059376         | 059377 | 059382                 | 059383 | 059378                         | 059380                 |                              | 059379              | 059381                 |                              | 059384  |
| Power supply with CPC port, voltage divider and serial port |                |        |                        |        |                                |                        | 059386                       |                     |                        | 059387                       |   |



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**Custom configurations** (select power supply, torch, consumable kit, work cable, and other components)

**Power supply options**

|               | Standard power supply | Power supply with CPC port and voltage divider | Power supply with CPC port, voltage divider, and serial port |
|---------------|-----------------------|--|--|
| 200-600 V CSA | 059370                | 059371   | 059372   |

**Starter kit consumable options**

|     | Handheld | Mechanized | Mechanized with ohmic retaining cap |
|-----|----------|------------|-------------------------------------|
| Kit | 228849   | 228848     | 228969                              |

**Torch options**

| Cable length | Hand torches |        | Machine torches |           | Robotic torches |        |        |
|--------------|--------------|--------|-----------------|-----------|-----------------|--------|--------|
|              | 75°          | 15°    | 180°            | Mini 180° | 45°             | 90°    | 180°   |
| 15'          |              |        | 059476          | 059481    |                 |        |        |
| 25'          | 059473       | 059470 | 059477          | 059482    | 059464          | 059465 | 059466 |
| 35'          |              |        | 059478          | 059483    |                 |        |        |
| 50'          | 059474       | 059471 | 059479          | 059484    | 059585          | 059586 | 059587 |
| 75'          | 059475       | 059472 | 059480          |           |                 |        |        |

**Cable options**

| Cable length | Work cables |               |               | Control cables |                                       |  |                                       |                                  |                           |
|--------------|-------------|---------------|---------------|----------------|---------------------------------------|--|---------------------------------------|----------------------------------|---------------------------|
|              | Hand clamp  | C-style clamp | Ring terminal | Remote pendant | CNC, spade connector, divided voltage | CNC, spade connector, no divided voltage | CNC, D-sub connector, divided voltage | RS-485 Serial comm, unterminated | RS-485 Serial comm, D-sub |
| 25'          | 223254      | 223287        | 223284        | 128650         | 228350                                | 023206                                   | 223048                                | 223236                           | 223239                    |
| 50'          | 223255      | 223288        | 223285        | 128651         | 228351                                | 023279                                   | 123896                                | 223237                           | 223240                    |
| 75'          | 223256      | 223289        | 223286        | 128652         |                                       |  |                                       |                                  |                           |

**Torch consumable parts**

Nozzles and electrodes are available in various quantities. Contact your distributor for more information.

| Consumable type     | Torch type   | Amperage | Nozzle | Shield/Deflector              | Retaining cap                 | Electrode | Swirl ring |
|---------------------|--------------|----------|--------|-------------------------------|-------------------------------|-----------|------------|
| Drag-cutting        | Hand         | 45       | 220941 | 220818                        | 220854                        | 220842    | 220994     |
|                     |              | 65       | 220819 |                               |                               |           |            |
|                     |              | 85       | 220816 |                               |                               |           |            |
|                     |              | 105      | 220990 | 220992                        |                               |           |            |
| Mechanized          | Machine      | 45       | 220941 | 220817 or 220955 <sup>1</sup> | 220854 or 220953 <sup>2</sup> | 220842    | 220994     |
|                     |              | 65       | 220819 |                               |                               |           |            |
|                     |              | 85       | 220816 |                               |                               |           |            |
|                     |              | 105      | 220990 | 220993 or 220955 <sup>1</sup> |                               |           |            |
| FineCut®            | Hand         | 45       | 220930 | 220931                        | 220854 or 220953 <sup>2</sup> | 220842    | 220947     |
|                     | Machine      |          |        | 220948                        |                               |           |            |
| Max control gouging | Hand/machine | 30-105   | 220797 | 420480                        | 220854                        | 220842    | 220994     |
| Max removal gouging | Hand/machine | 30-105   | 220991 | 220798                        | 220854                        | 220842    | 220994     |

<sup>1</sup> Deflector for unshielded cutting

<sup>2</sup> Ohmic retaining cap

## Recommended Hypertherm genuine accessories



### Hyamp™ helmet

Premium auto-dim shade 8-12 with a large 7.92 square inch viewing area for cutting, welding and gouging. Includes clear safety shields, pouch and sticker sheet. ANSI Z87.1, CSA Z94.3, CE

017031



### Leather torch sheathing

Available in 25' sections, this option provides additional protection for torch leads against burn-through and abrasion.

024877 Black leather with Hypertherm logos



### Wheel/gantry kits

Complete, pre-assembled kits for added mobility or mounting on a cutting table gantry.

229467 Powermax105/125 wheel kit

229570 Powermax105/125 gantry kit



### Air filtration kit

A ready-to-install kit with a 1-micron filter and an auto drain moisture separator protects against contaminated air. Made in USA

228890 Filter plus cover for Powermax105/125

011092 Replacement filter element for Elimimizer

101215 Cover only for Powermax105/125



### System dust covers

Made from a flame-retardant vinyl, a dust cover will protect your Powermax system for years. Made in USA

127360 Cover, Powermax105



### Hyamp cutting and gouging gloves

Insulated for heavy duty applications. Fire resistant goatskin leather and suede. Padded areas for extra heat and abrasion protection. Made in USA

017025 Medium

017026 Large

017027 X-Large

017028 2X-Large

Engineered and assembled in the USA

ISO 9001:2008

Environmental stewardship is one of Hypertherm's core values, and it is critical to our success and our customers' success. We are striving to reduce the environmental impact of everything we do. For more information: [www.hypertherm.com/environment](http://www.hypertherm.com/environment).



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