



# Flush cutting with Powermax<sup>®</sup> plasma systems

Cutting closer just got easier



The FlushCut™ process for select Powermax systems provides users with the ability to cut closer to base materials than ever before.

## **Reduce time consuming and costly grinding**

Close cutting for the removal of lugs and other attachments has typically been performed via oxyfuel cutting or carbon arc gouging, followed by labor intensive grinding. FlushCut for Powermax plasma systems provides a new, more efficient process for challenging removal applications.

The patented consumable design for FlushCut features an angled nozzle bore design which delivers the plasma arc at a 45 degree angle – essentially bending the plasma arc. This unique design gives Powermax users the ability to cut closer or more flush to the base than ever before which significantly reduces grinding and increases the opportunity to reuse pad eyes, attachments and other temporary weld supports.

## Advantages of the Powermax® FlushCut™ process vs. oxyfuel cutting and carbon arc gouging in close or flush cutting applications

### FlushCut vs. oxyfuel cutting

- The Heat Affected Zone (HAZ) associated with FlushCut is significantly smaller than the HAZ associated with oxyfuel which allows for a closer cut and less grinding.
- Because of the HAZ associated with oxyfuel, operators have to cut higher on the lug or attachment which reduces the chances of reuse.

### FlushCut vs. carbon arc gouging

- When carbon arc gouging a lug or attachment, a minimum of two passes are needed for removal compared to the FlushCut process which requires only a single pass.
- The carbon arc gouging process is more likely to dig into the workpiece, which requires costly and time consuming repair work.

## FlushCut consumables for Powermax systems with Duramax® Lock, Duramax, and Duramax Hyamp™ series torches

| System                          | Operating amperages | Torch series*         | Retaining ring | Retaining cap | Nozzle / Shield | Swirl ring | Electrode | FlushCut starter kit    |
|---------------------------------|---------------------|-----------------------|----------------|---------------|-----------------|------------|-----------|-------------------------|
| <b>Minimum order quantities</b> |                     |                       | <b>1</b>       | <b>1</b>      | <b>1</b>        | <b>1</b>   | <b>5</b>  | <b>1 of each in kit</b> |
| Powermax45 XP**                 | 30-45 A             | Duramax, Duramax Lock | 420540         | 420536        | 420633          | 420634     | 420635    | 428746                  |
| Powermax105                     | 85-105 A            | Duramax               | 420540         | 420536        | 420533          | 420539     | 220842    | 428647                  |
| <b>Minimum order quantities</b> |                     |                       | <b>1</b>       | <b>1</b>      | <b>1</b>        | <b>1</b>   | <b>1</b>  | <b>1 of each in kit</b> |
| Powermax125                     | 85-125 A            | Duramax Hyamp         | 420485         | 420490        | 420489          | 420484     | 420553    | 428713                  |

\* FlushCut consumables are not compatible with Duramax RT torches.

\*\* Using the 45 A FlushCut consumables above 45 amps on the Powermax65/85/105 will cause premature consumable damage.

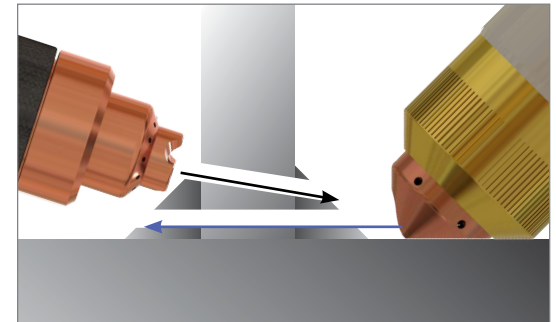


When using FlushCut consumables, operators can expect to leave less than 5 mm (3/16") of material on the workpiece after the removal of a lug, attachment or pad eye.



After the attachment is removed, operators can reduce the amperage on the system and wash any remaining material away without digging into the workpiece. FlushCut washing further reduces the need for grinding.

Standard



Non-optimal angle for cutting

FlushCut

Optimal angle for cutting



Scan this code to learn more about FlushCut or visit:  
[www.hypertherm.com/FlushCut](http://www.hypertherm.com/FlushCut)

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