

**Kjellberg**<sup>®</sup>  
**FINSTERWALDE**

the  
**FINE FOCUS**<sup>™</sup>  
company

## Plasma Cutting System

# HiFocus 130

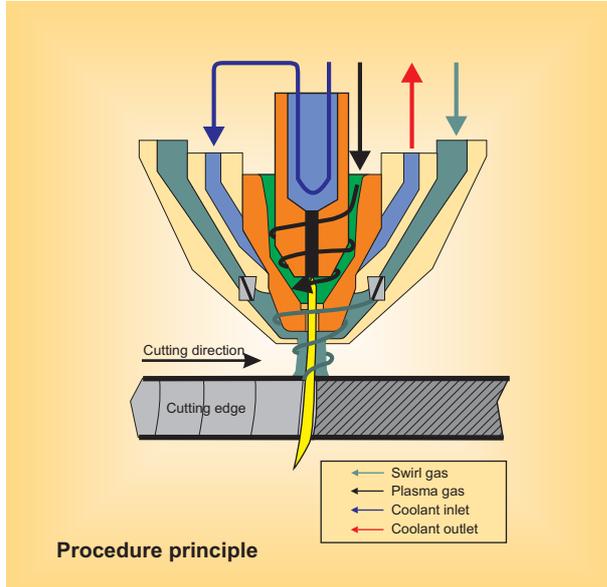
**HiFOCUS<sup>PLUS</sup>** - technology  
= outstanding results at minimized costs



**Cutting of electrically conductive  
materials from 0.5 to 40 mm**

## The HiFocus-technology with PLUS for highest demands

### Cutting results with high precision



The production of smooth, square and dross-free cutting surfaces, which can be used for further operations without post-processing, is the basis content of the Kjellberg philosophy regarding plasma cutting.

Nearly straight cuts at materials 0.5 to 32 (40) mm thick can be produced with the plasma cutting unit HiFocus 130. This will be achieved by an increased constriction and stabilization of the plasma arc.

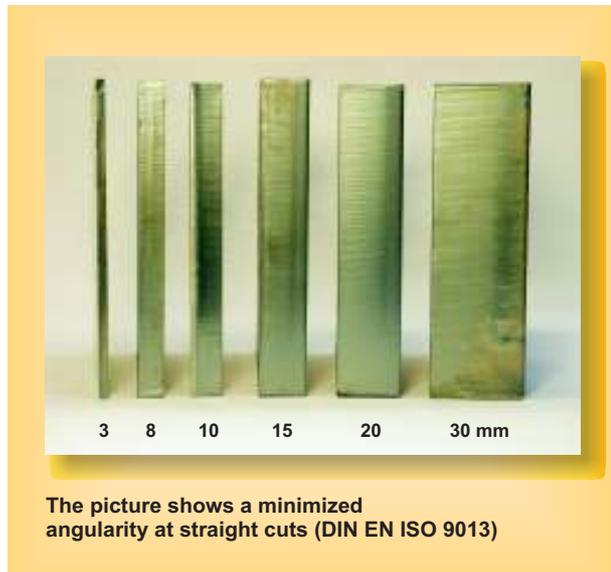
The insulated swirl-gas nozzle, which is protecting the cutting nozzle against upcoming hot material and double arcing during piercing as well, ensures permanent cutting quality, high life time of consumables, and therefore lowest operational costs.

### HiFocus<sup>PLUS</sup> - extends the range of application

The HiFocus<sup>PLUS</sup>-technology is based on a computer-optimised development of plasma torch components and control sequences. The result is a **laserlike cutting quality** with extremely low squareness tolerances acc. to DIN EN ISO 9013 for a very wide thickness range up to 32 (40) mm.

An up to 100 % higher cutting speed compared with conventional systems in connection with the increased **longevity of the YellowXLife™ consumables** are the result of considerably minimized cutting costs for mild steels.

**The outstanding features of the new HiFocus<sup>PLUS</sup>-technology are highest quality capabilities at a substantially improved productivity and cost reduction in an extended range of application.**



With the plasma cutting unit HiFocus 130 four optimised cutting ranges are disposable, ensuring superb cutting results at destined dimension limits for mild steels, stainless steels and aluminium. Those are characterized by:

- metallically clean, laser-like cutting surfaces, also with thicker materials and stainless steels,
- narrow cutting kerfs with lowest squareness tolerances,
- very small heat effected zones, therefore nearly no distortions, also at thin plates,
- dross-free cutting in a wide range of thickness,
- running cutting start and running piercing,
- direct corner cutting and cutting of inside contours;

and ensure a wide technological field of application as well as excellent economical parameters.

## Process stability and reliability at automated operation

### High availability of the plasma cutting units and the HiFocus-plasma torches

Due to their outstanding features the Kjellberg plasma cutting units are offering versatile possibilities of application to the customer. In principle all electrically conductive materials can be cut. Critical conditions, like coated or dirty material surfaces, plate inclusions, air gaps or silicon and sulphur containing mild steels will not create any problems.

The HiFocus 130 is destined for cutting operations in connection with guiding systems, provided with a conventional and a serial interface, and therefore compatible to various control systems.

Availability and performance capabilities of the cutting unit itself and particularly of the sophisticated plasma torches of the PerCut series are of decisive meaning for application in automated processes. For the cutting with the plasma gas oxygen the specially developed **YellowXLife™ system** will be used. The cathode

is furnished with a high-quality Hafnium pin, which is imbedded in a special alloy and directly water cooled.

A difficult to fabricate cooling channel system is granting an extremely effective heat transfer from the water cooled nozzle. Due to the swirl-gas technology piercing is a nozzle saving operation now. In connection with the powerful **plasma torches PerCut 160 and PerCut 170**, the plasma cutting unit offers high-economical and cost-saving solutions to the customer.

Cutting quality and lifetime of consumables depend widely from the guiding system. Generally, it is recommended to integrate an arc voltage depending torch height and distance control system into the cutting complex.

### Robot guided cutting of 3D-parts

Besides the application with 2D-guiding systems more and more the use of the plasma cutting technology in the automotive industry for the preparation of 3D-parts grows rapidly, a field, where the laser cutting was dominant so far.

The high technical level of the HiFocus-technology, which is fulfilling the high quality and fabrication requirements in that sector, is the reason that the number of our partners in the automotive sector and their suppliers, using the HiFocus 130, worldwide is growing.

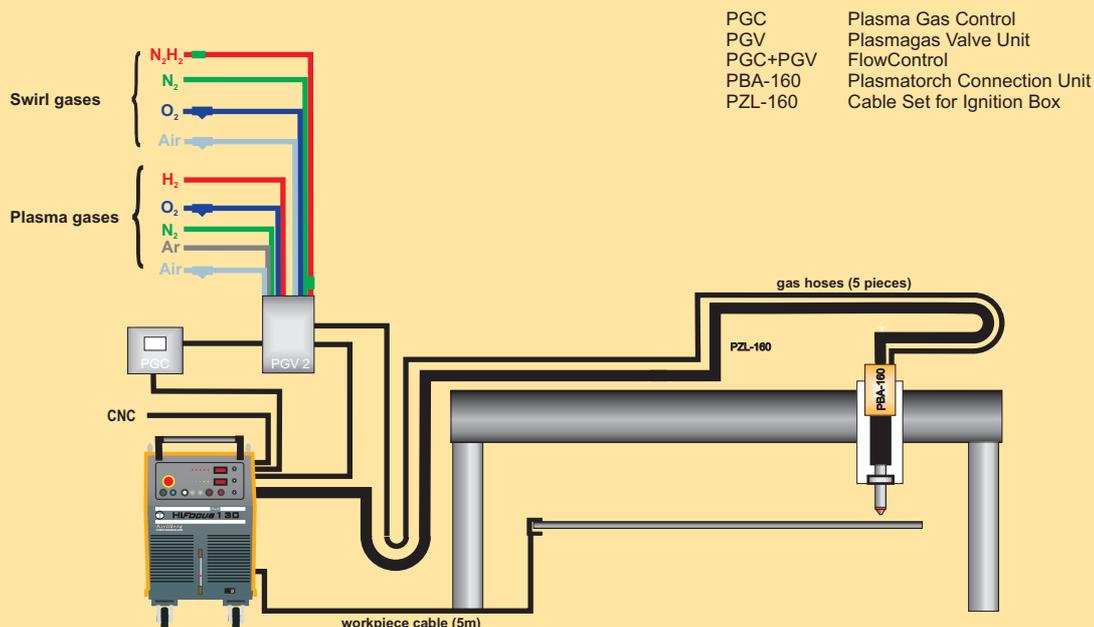
Features at the cutting of 3D-parts with Kjellberg cutting systems are the high process stability and the relative insensitiveness to process-related tolerances (e.g. at IHU-profiles) compared with the laser cutting and products from competitors.



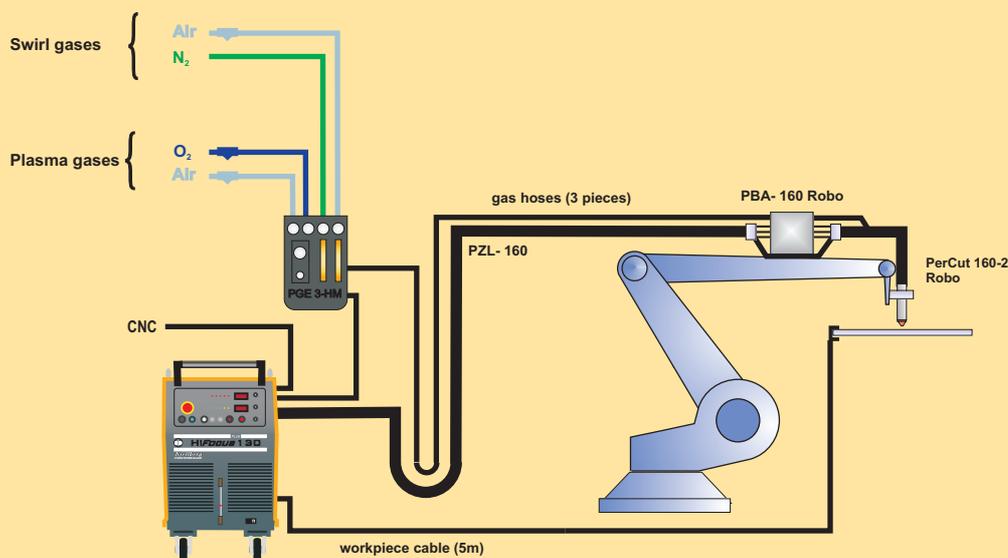
HiFocus plasma  
approved in  
various sectors of the  
automotive fabrication

## Equipment examples for HiFocus 130

### Plasma cutting of mild steel, stainless steel and aluminium with FlowControl (maximum configuration)



### Plasma cutting of mild steel with robot (with PGE3-HM)



The plasma cutting systems possess CE-conformity and comply with the valid regulations and instructions of the European Union. They are developed on basis of following standards: EN 60974 (VDE 0544).

All Kjellberg plasma cutting systems possess the S-mark and therefore are applicable at environments with increased hazard of electric shock. The fabrication takes place according to DIN EN ISO 9001. The company quality assurance is carried out in form of piece and cutting performance check, proofed by product-related test certificate.

Our products represent a high level of quality and reliability. We reserve the rights to change design and/or technical specification during the series fabrication. Claims of any kind can not be derived from this prospectus.

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