

## Welding Head YW30

Modular compact welding head



Precitec's range of processing heads has been extended with the addition of the compact YW30 Welding Head. Due to the system's modular design, customers can tailor the package to meet the specific needs of their application. The basic version is very competitively priced and customers can then expand the system with the addition of modules to give pre-process, in-process and post-process monitoring. The full process monitoring available makes the complete system ideal for use with fully automated production processes. In spite of its compact design, the YW30 Welding Head is very rugged and can handle up to 6kW of laser power.

### >> FLEXIBLE

- modular construction
- individual, customer-specific configuration
- for all solid-state lasers with high beam quality
- a range of focal lengths for collimation and focusing

### >> ROBUST & STABLE

- stable process due to high-quality optics
- capable for high laser power
- optics are protected against contamination
- long durability of the optics due to efficient CrossJet

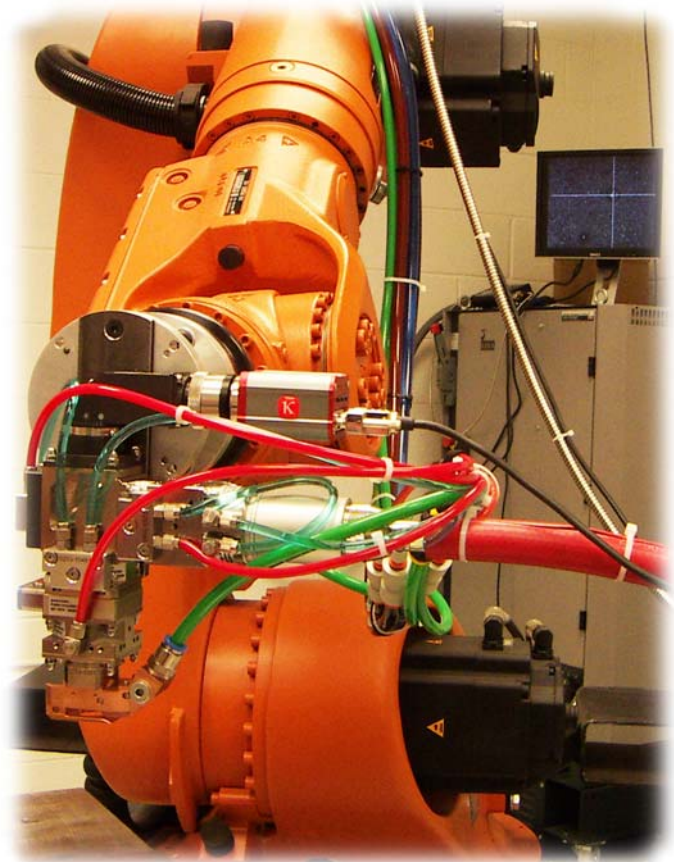
### >> USER FRIENDLY

- easy change optics
- operating status can be monitored by PC

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## System types / Lasers:

- robot
- gantry systems
- for all solid-state lasers like Nd:YAG-, fibre and disc lasers
- can be used with pulsing lasers
- hybrid welding
- filler wire welding



## Features:

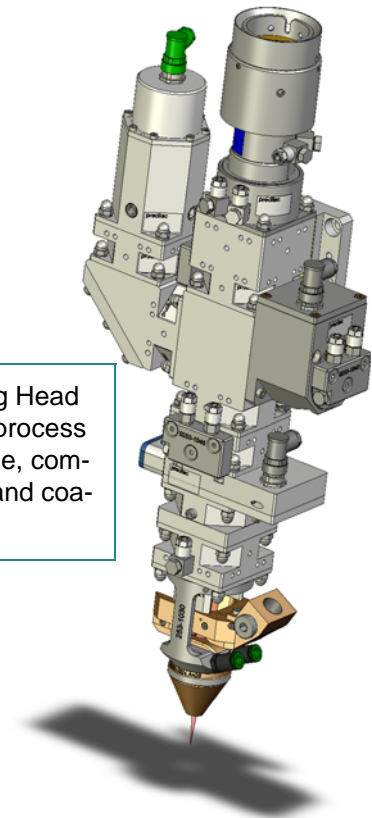
- **Quality control**
  - can be combined with in-process monitoring LWM, seam tracking LPF and seam geometry monitoring SGM
  - protective window cartridge with monitoring that is independent of laser performance and informs of presence, temperature and the degree of contamination of the window
- **Modularity**
  - flexible process thanks to variable focal position
  - application-specific configuration
  - simple integration into existing systems due to slim-line design
  - upgrades are easy to perform
- **Process**
  - simple teaching possible thanks to monitoring camera
  - long protective window life through integral CrossJet concepts which can be adapted for various applications
  - high-quality welding by means of protective shield gas supply which can be adapted to suit the welding task at hand
- **Cooling System**
  - no separate cooling system necessary; the laser beam source cooling unit can be used
  - all water cooling circuits made of stainless steel



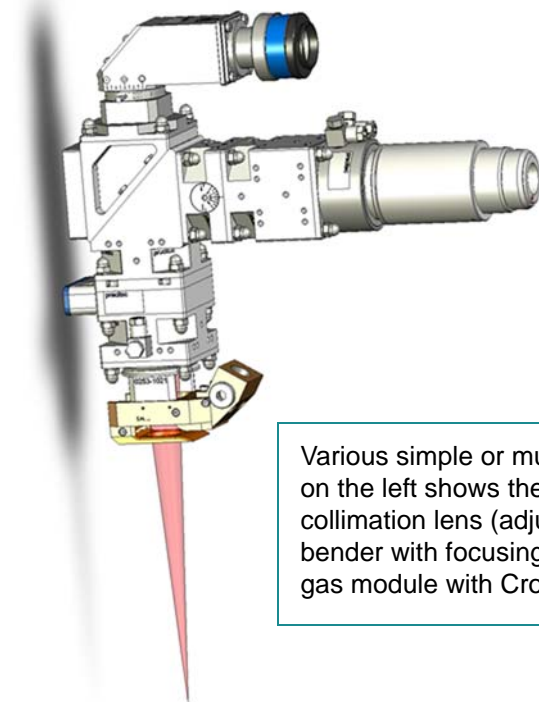
## Modular concept - application-specific configuration



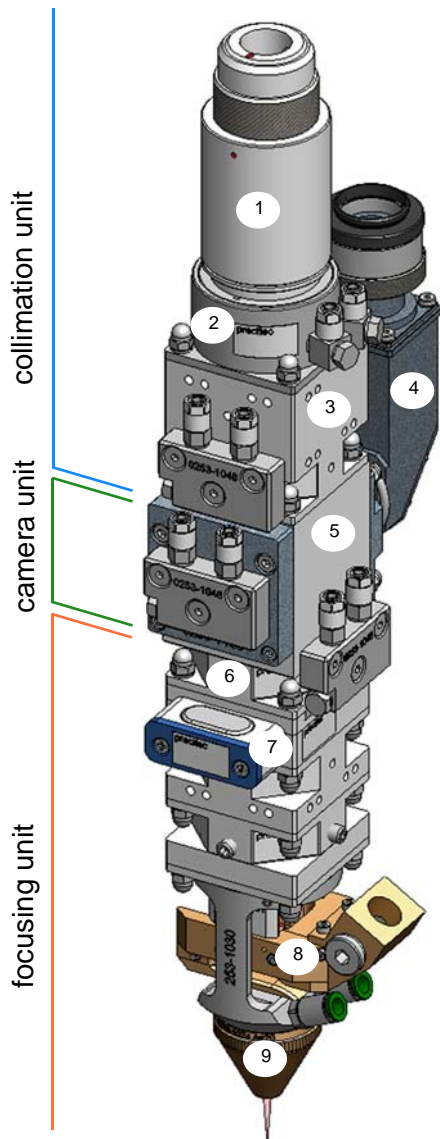
The picture on the left shows the extremely compact and economical basic version of the welding head, with QBH fibre sockets, collimation, focusing, protective window cartridge and CrossJet.



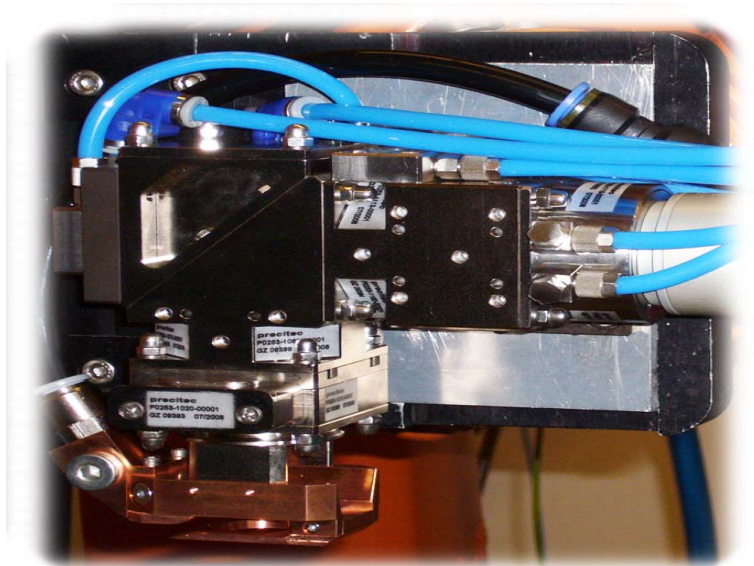
This version shows the YW30 Welding Head with "automotive" fibre sockets, LWM process monitoring, protective window cartridge, compensatory gas module with CrossJet and coaxial protective gas supply.



Various simple or multiple-angled versions are available. The picture on the left shows the YW30 Welding Head with QBH fibre sockets, the collimation lens (adjustable in the Z direction), camera flange, beam bender with focusing, protective window cartridge and compensatory gas module with CrossJet.



- 1 - fibre socket
- 2 - aperture, water cooled
- 3 - collimation lens, water cooled
- 4 - camera module
- 5 - beam splitter module
- 6 - focusing lens, water cooled
- 7 - protective glass cartridge
- 8 - CrossJet with air guide plate and air connection
- 9 - coaxial protective gas nozzle



### Technical specifications of YW30 Welding Head

max. laser power	6 kW
focal lengths collimation	75 mm, 100 mm, 125 mm, 150 mm
focal lengths focusing	150 mm, 200 mm, 250 mm
mass	2 to 4 kg, depending on construction
dimensions (standard modul)	50 x 50 mm (edges dimension)

The given data was generated for a typical application and may be different given other circumstances. Furthermore misprints, changes and/or innovations may lead to differences in the listed measurements, technical data and features. Therefore **all information is non-binding and technical data, measurements as well as features are not guaranteed by information in this product information.**

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