

Experis® Gases

H₂ BIP® technology

– a new standard in hydrogen purity

➤ Purity

➤ Accuracy

➤ Stability

➤ Peace of mind

➤ **Reduced column bleed**

➤ **Longer column life**

➤ **Reduced baseline noise**

➤ **Improved limits of detection**

➤ **Perfect chromatography every time**

➤ **Experis® gases**

Whatever your application, be it chemical analysis or process control, our Experis® gases offer you the optimum gas solution. Our Experis® range consists of stable and highly accurate calibration mixtures, ultra-pure gases and high specification gas handling equipment. Experis® gases are designed to ensure accuracy, purity, stability and peace of mind.

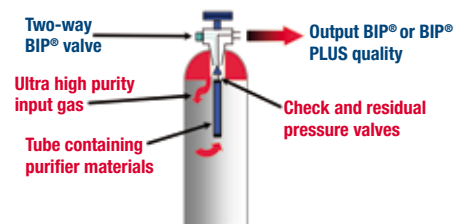
➤ **H₂ BIP® cylinders**

Our unique patented BIP® technology has now been extended to Hydrogen. Used in a wide range of industrial applications, Hydrogen BIP® cylinders are now available with ultra low impurity specifications not previously available.

➤ **BIP® technology**

Our unique BIP® cylinders, using a patented method of eliminating critical impurities as the gas is removed from the cylinder, offer the very highest purity levels – perfect for even the most demanding analytical and process applications. Every H₂ BIP® cylinder contains less than 20 ppb of water, less than 100 ppb of oxygen and less than 10 ppb of total hydrocarbons. Hydrogen BIP® gas is therefore many times purer than all conventional grades of Hydrogen.

BIP® valve and purifier design



Our patented BIP® technology features not only an automatic shut-off valve but also a non-return valve making it impossible for any external contamination to enter the cylinder. Perfect gas quality is therefore guaranteed every time giving you peace of mind and allowing you to concentrate on your business.

Impurity specifications in ppb or ppm molar

Grade	H ₂ O	O ₂	THC	CO + CO ₂	N ₂	Certification
H ₂ BIP® cylinder	20 ppb	100 ppb	10 ppb	0.5 ppm	2 ppm	Batch
H ₂ BIP® PLUS cylinder	20 ppb	100 ppb	10 ppb	50 ppb	200 ppb	Individual

THC = Total Hydrocarbons measured as Methane

H₂ BIP® cylinders provide the perfect gas for Gas Chromatography

H₂ BIP® gas has been specifically designed for the analytical user. With its ultra low water and oxygen impurities, H₂ BIP® cylinders offer the perfect carrier gas giving longer column life, reduced baseline noise and improved limits of detection. In addition, thanks to its ultra low hydrocarbon impurities, H₂ BIP® gas is the perfect FID fuel gas as it further reduces baseline noise and improves limits of detection.



Baseline noise reduction and column bleed improvement with simultaneous fuel and carrier gas change from H₂ standard to H₂ BIP® gas

