

# **Speciality Base oils for metal working fluids**

**The Hydroseal Range**



**TOTAL**

# Hydroseal – speciality base oils for metal working fluids

Total's Hydroseal products are a range of high performance, low viscosity base oils widely used when fabricating metal working fluids. They are designed for a variety of applications within the metal working arena, and deliver excellent washing and cooling action.

The outstanding purity of the Hydroseal range and their complete absence of both odour and colour combine with superior ageing stability and mildness to the skin, enabling the formulation of the metal working fluids of choice.

## Hydroseal – the cool alternative

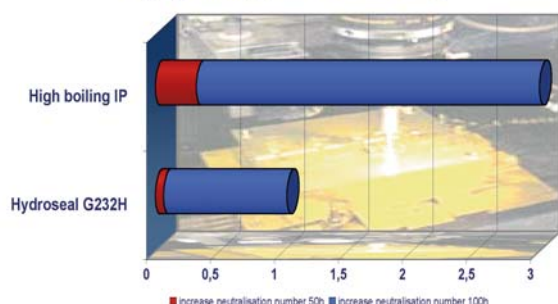
Operations such as Grinding, Honing and Electrical Discharge Machining require metal working fluids with two key technical characteristics. Outstanding washing action is required to keep machine tools clean and remove grinding swarf or chips. In addition, excellent cooling action is needed to dispel the extreme heat generated by these operations.

Such cutting and grinding fluids can only be formulated with low viscosity base oils. The advantages associated with low viscosity fluids must however be qualified against the possible inherent problems of low flash point, high evaporation rates and/or possible odour nuisance.

Total's Hydroseal range is derived from hydro-cracked feedstock, purified by high pressure hydrogenation and fractionated with narrow cut distillation. This process provides the best possible combination of technical performance and cost efficiency within a safe working environment.



Ageing Stability (100 h 90°C 15 L/h air)



## Technical characteristics to meet your needs

Hydroseal fluids do not stain yellow metals, are crystal clear and odourless thanks to their outstanding purity; they contain neither sulphur nor aromatics. Their narrow boiling range ensures low evaporation rates and comparatively high flash points, reducing both fire risk and vapour formation on the shop floor. Hydroseal's excellent ageing stability, exceeding even synthetic isoparaffinic fluids, maximises the service life of the metal working fluid.

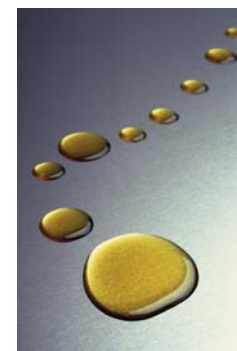
All grades are non VOC and approved for indirect contact with foodstuff.

**Hydroseal fluids combine the technical performance of hydro-cracked base oils with the purity of White Oils.**

## The Hydroseal Range

The Hydroseal range is made up of five products, designed for different metal working formulations:

	Viscosity (40°C) [mm <sup>2</sup> /s]	Flash Point [°C]	Examples of formulations made using Hydroseal fluids
HYDROSEAL G232H	2,4	103	Spark erosion, forming & corrosion protection fluids, fluids requiring low pour point
HYDROSEAL G240H	2,8	112	
HYDROSEAL G250H	3,6	124	Lapping, superfinishing, honing fluids
HYDROSEAL G3H	4,1	135	Honing, grinding, water based fluids
HYDROSEAL G400H	6,0	158	Grinding, machining, water based fluids



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