

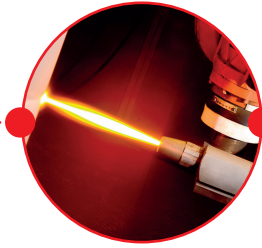
## A component journey

# Controlling the flow – Gate valve

Gate valves and seats are used in the oil & gas industry to control the flow of oil-containing fluid extracted from the reserve. Within the well, pressures may be in excess of 15,000psi (or 6.5 tonnes per square inch) combined with high temperature. Such an extreme environment requires high performing components and reliable surface coating treatment. Bodycote applies a tungsten carbide coating to the valve and seat to provide a metal-to-metal seal that is highly wear and corrosion resistant.



The valve component is machined from high grade stainless steel or nickel based alloy.



**B** The valve component is coated with gas tight tungsten carbide to provide a wear and corrosion resistant surface.



**B** The part is super polished to provide a metal-to-metal sealing surface capable of withstanding pressures in excess of 20,000psi.



**B** The coated surface is ground to specification to prepare it for polishing.



The part is assembled into the operating control valve and leak checked.



End application,  
**Subsea assembly  
or land-based rig.**

**B** Denotes the parts of the component journey undertaken by Bodycote