



## GAS SPARGING SYSTEM (OXYGEN AND AIR LANCES)

### 1. Introduction

The PrepQuip SpringSparge Sparger, also known as oxygen and air lances, is being successfully used in gas injection and flotation applications. The design of this innovative Sparger incorporates a built-in fail-safe mechanism that prevents Sparger blockages due to gas supply pressure failure. This system is offered with PrepQuip's superior sealing port arrangement as standard. This facilitates Sparger removal while the plant is still in operation eliminating the necessity for plant shutdown for equipment maintenance.

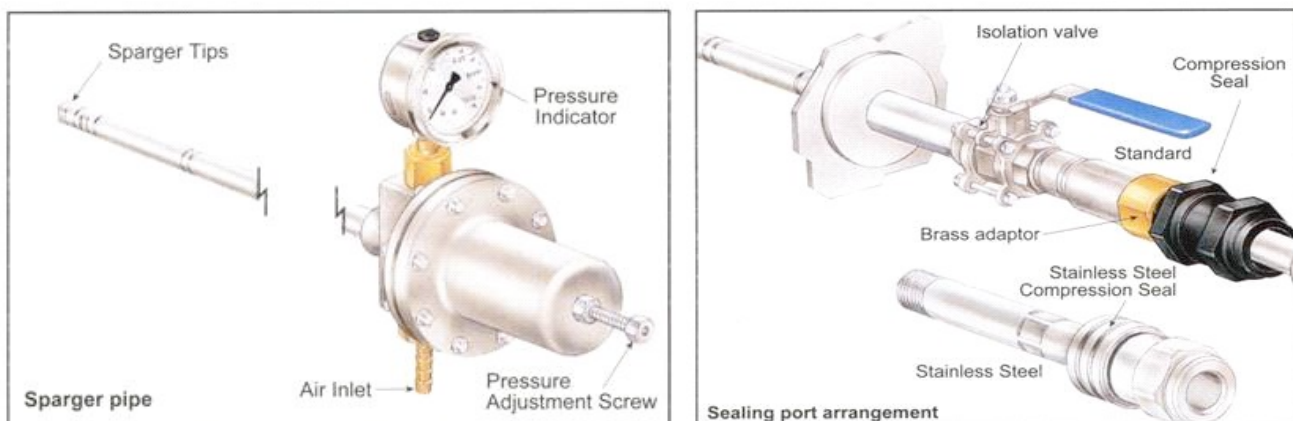
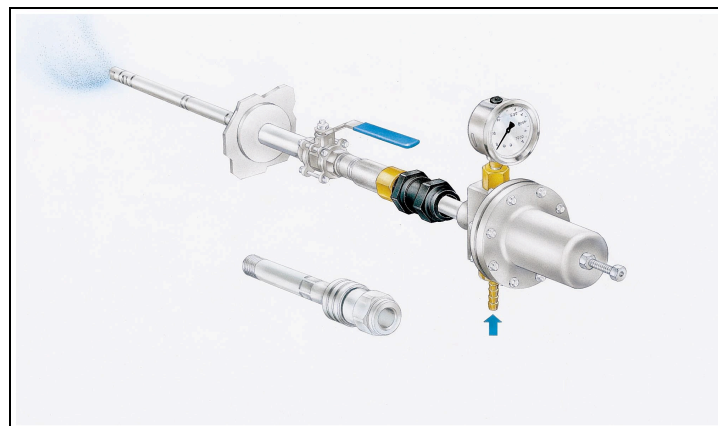


Figure 1: SpringSparge Sparger – Components and operating principle



The Sparger has found ready acceptance in gas injection applications on the gold leaching plants, flotation column applications and agitation in mechanical flotation cells to prevent solids build-up.

## 2. Application and features

### ➤ **Applications**

- Gas injection (Gold leaching plants)
- Flotation columns gas injection and microbubble creation
- Agitation (prevention of solids built-up in tanks)



Figure 2: SpringSparge Sparger and sealing port arrangement

### ➤ **Features**

- No sparger or lance water
- Independent control of bubble size and air rate
- Narrow bubble size distribution
- Fail-safe design to prevent sparger clogging
- Sealing port arrangement
- Maintenance possible during operation
- Replaceable tungsten carbide and ceramic tips
- Split nozzle sparger ceramic tip design for optimization
- Utilized in oxygen and air applications



Figure 3: SpringSparge Sparger

Our oxygen and air lances has the potential to increase gold recovery and optimize oxygen and air consumption which in turn also decreases cyanide addition to the process.

Please feel free to contact is at [process@prepquip.com](mailto:process@prepquip.com) or visit our website [www.prepquip.com](http://www.prepquip.com) for more information.