



## Process Measurement & Control Solutions

### 工艺测量和控制策略

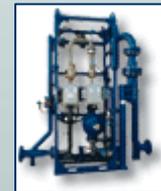


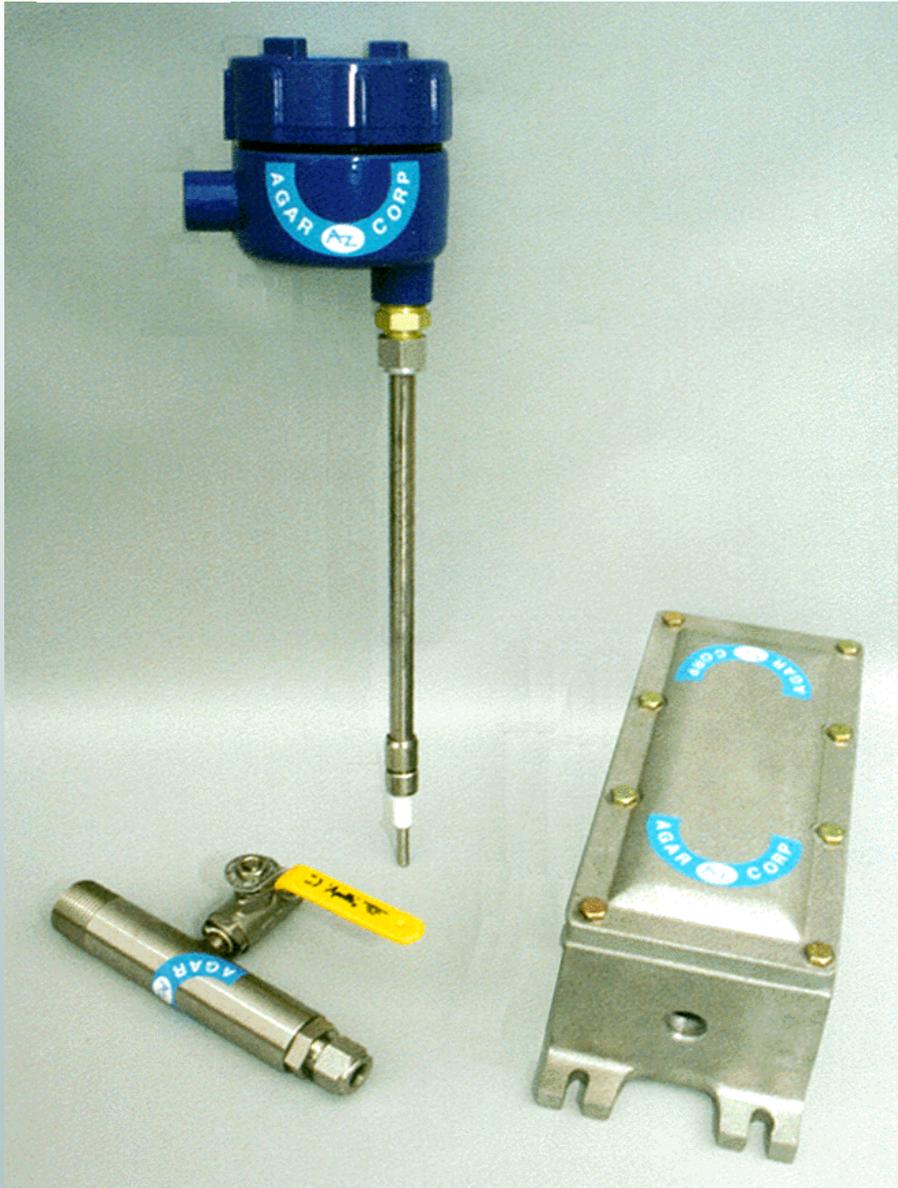
[www.agarcorp.com](http://www.agarcorp.com)

## Agar Corporation. Agar 公司

- Founded in 1980 and based in Houston, TX.
- 成立于1980年，总部位于美国休斯顿。
- Agar Corporation is world wide known as one of the most important manufacturers of interface detectors, water cut meters and multiphase flow meters.
- Agar公司是世界闻名的界面探测仪，含水量分析仪和多相流量计，最重要的制造商之一。
- Unique systems for hydrocarbon, water and natural gas measurements, downstream and upstream in oil and gas
- 应用于水和天然气上下游的油，水，气独特测量系统。
- There are more than 122 countries with Agar installations.
- 目前有122个国家采用Agar公司的产品。
- Agar systems standardization : Shell, Conoco-phillips, ExxonMobil and Saudi Aramco.
- 壳牌，康菲，美孚和沙特阿美等石油公司将Agar产品作为标准化应用。

- Agar Products.
- Agar 产品.
  - Interface detectors.
    - 界面探测仪
  - On line water cut meters
    - 在线含水率分析仪
  - Multiphase Flow meters.
    - 多相流量计





## *Interface Detectors*

### Serie ID-200 :

- ID-201: standard, 1/2" shaft.
- ID-202: 1-1/4" shaft.
- ID-205: cable mounted.

### Standard specifications :

- 0-100% hydrocarbon/water by volume.
- 32 F - 450 F (0 C - 230 C) operating temperature
- 300 psi (higher pressures subject to review)
- 316 SS & Teflon
- Shaft: 1/2" up to 10 ft probe length. 1-1/4" for longer probes.
- Output: Powered 4-20 mA

### Certificates -

CSA, BASEEFA, ATEX, GOST-R, JRIIS

## ID Sensor – How it works:

**Operating principle:** Microwave energy absorption.

### Description:

- A radiofrequency signal is provided by the electronic control and radiated by an antenna.
- Water in the interface absorbs the radiated energy due to its conductive nature, but hydrocarbon will not.
- The amount of absorbed energy is measured by the electronic control and a 4-20 mA is generated proportionally to that absorption.
- Generally speaking, the ID sensor will work not only with hydrocarbon and water mix, but with any other mix of two elements with different electrical properties.

## ID 传感器 – 工作原理:

**操作原理:** 微波能量吸收

### 描述:

- 电子设备控制天线发射一个射频信号。
- 界面的水由于其导电性将吸收一部分能量，而油不会。
- 电子控制电路测量吸收的能量总和，产生一个和吸收量对应的4-20mA信号。
- 因此当流体中含水越多时信号数值越大。
- 总体来说，ID传感器不仅用于油和水的混合物，而是可以用于任何两种介电常数不同的流体。



Dielectric Constant 介电常数

gas 气: 1

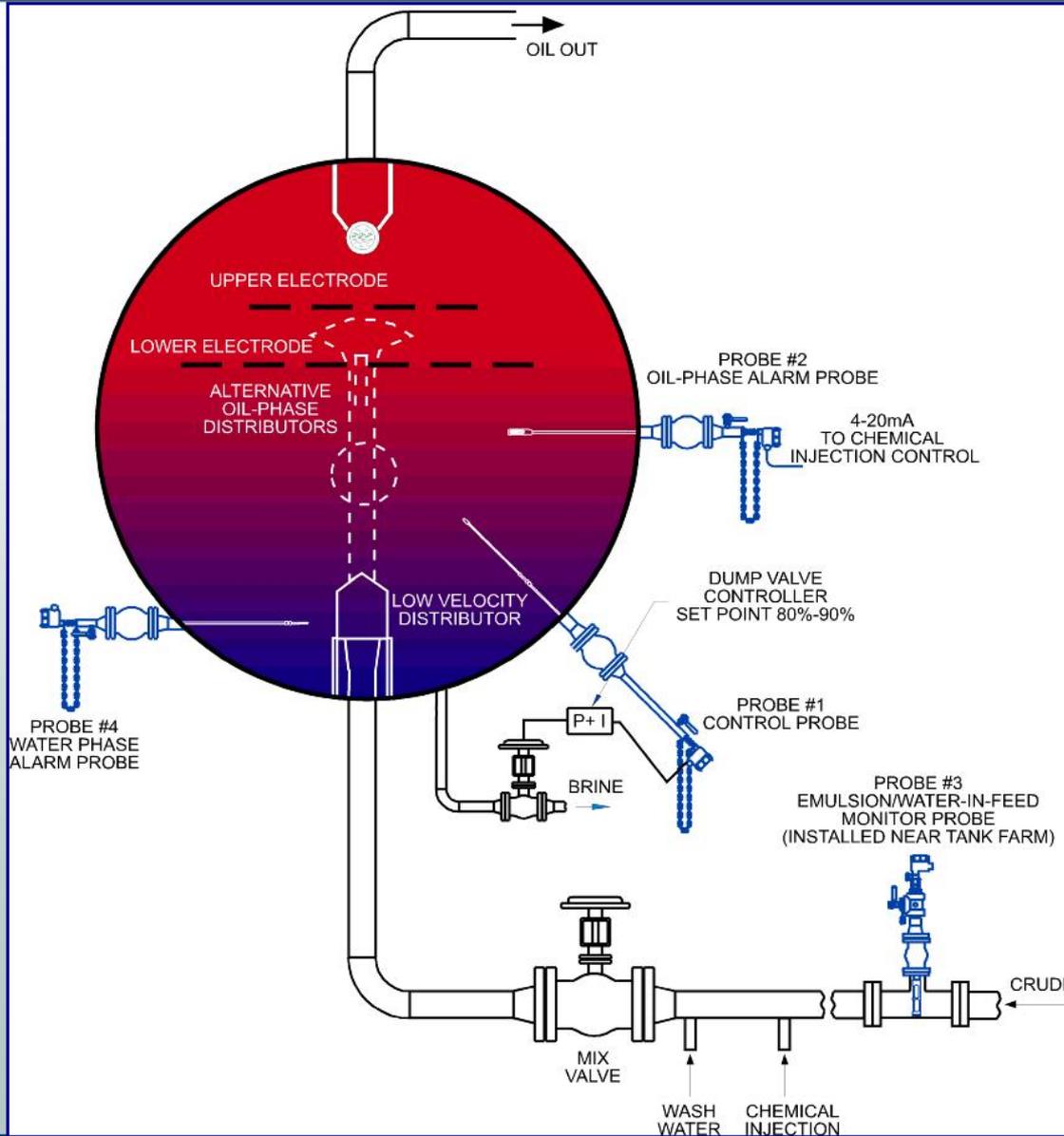
oil 油: 2-3

water 水: 78



## System 3

## Desalter

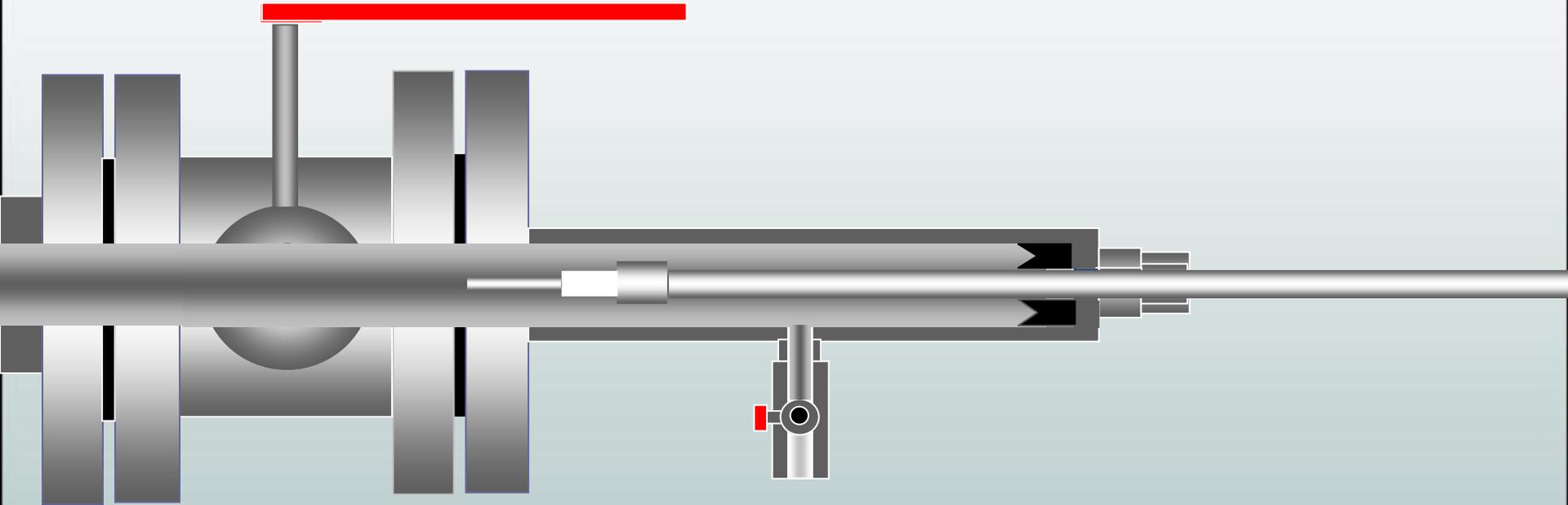


ID Sensor

How to use it – Antenna insertion

ID 传感器

使用方法 – 天线插入



**Open the**

**isolation valve**

打开隔离阀

## ID Sensor

How to use it - Antenna Insertion

ID 传感器

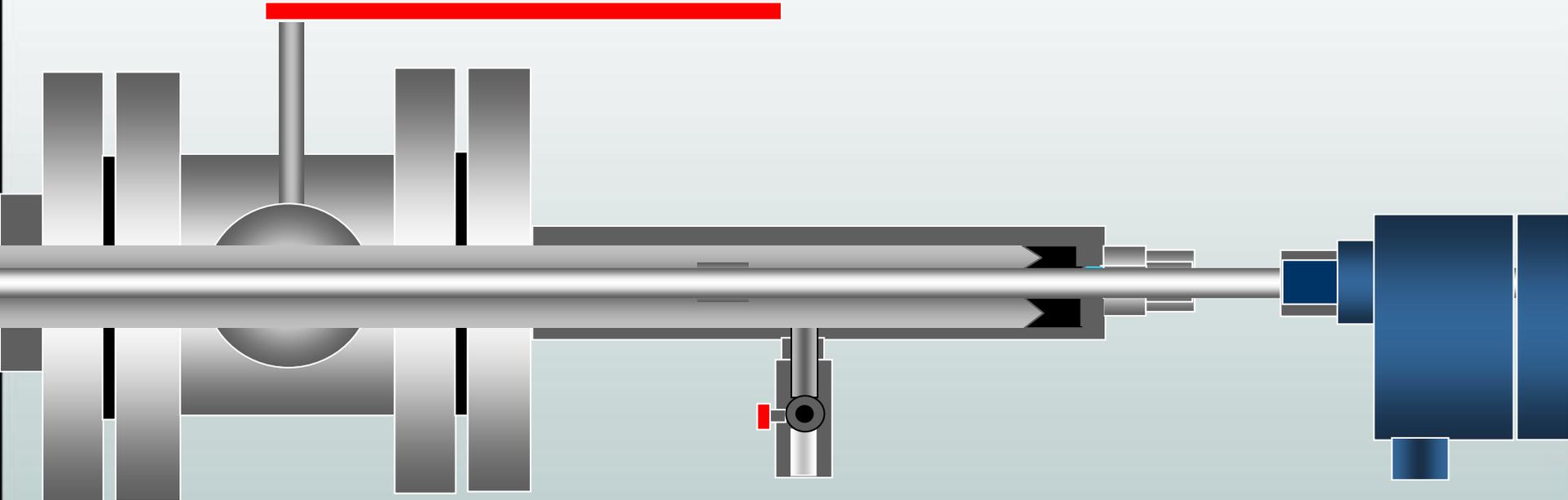
如何使用-天线插入

## ID Sensor

How to use it - Antenna Extraction

ID 传感器

如何使用 - 天线拔出



**Remove the antenna up till  
the active part**

**stay in the seal housing**

拔出天线直到测量部分完全进入密封式

**Install the antenna up to  
the required position**

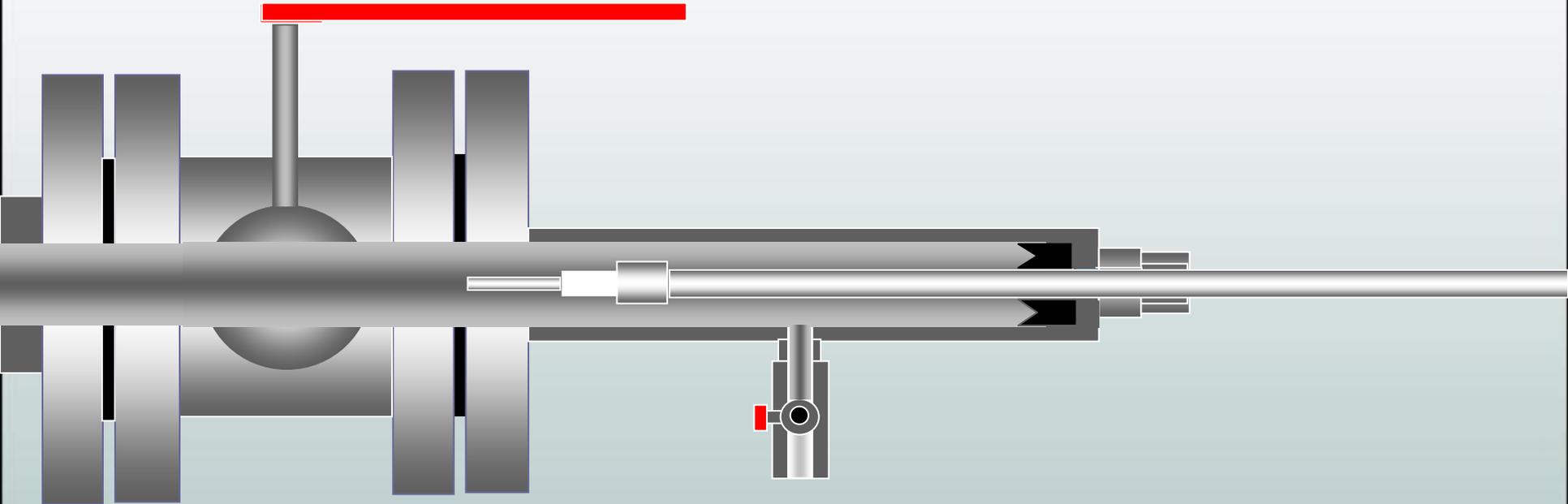
将天线安装到要求的位置

ID Sensor

How to use it - Antenna Extraction

ID 传感器

如何使用 - 天线拔出



**Close the isolation**

**valve**

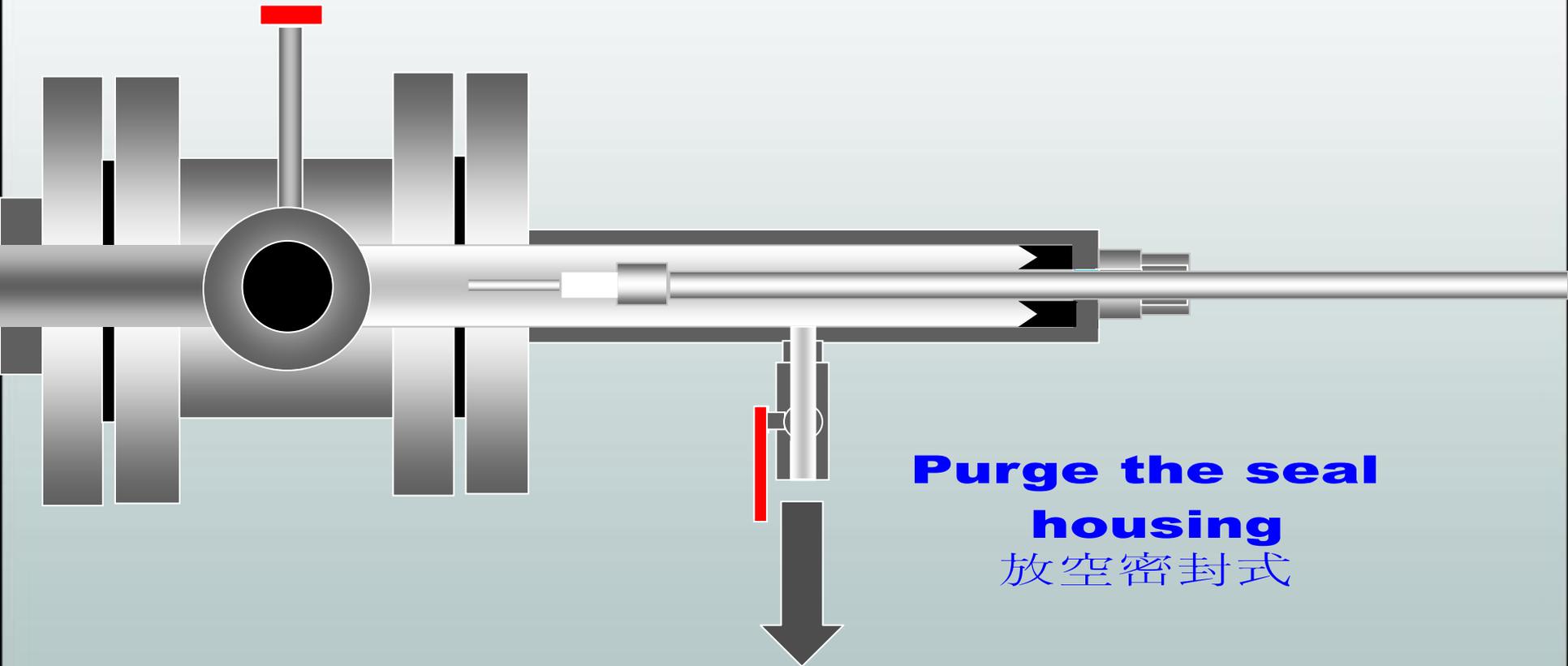
关闭隔离阀

ID Sensor

How to use it - Antenna Extraction

ID 传感器

如何使用 - 天线拔出



**Purge the seal**

**housing**

放空密封式



盈翰士  
Enhanced Solutions

AGAR CORPORATION

*For your kind attention,*

***THANKS!***