

## 氢能相关材料

Materials for Hydrogen Gas Application

用有特色的金属材料为氢能社会的实现做贡献  
Our unique metal materials contribute to realize a hydrogen-based society.



### 概要

## 结合制氢、储氢、氢能应用的各种情况、提供适合的材料。

Proterial proposes a suitable material according to the operating environment of hydrogen (e.g., production, storage and utilization).

### 特长

我司的材料相比一般不锈钢拥有以下特长。

Our materials are superior to common stainless steels as follows:

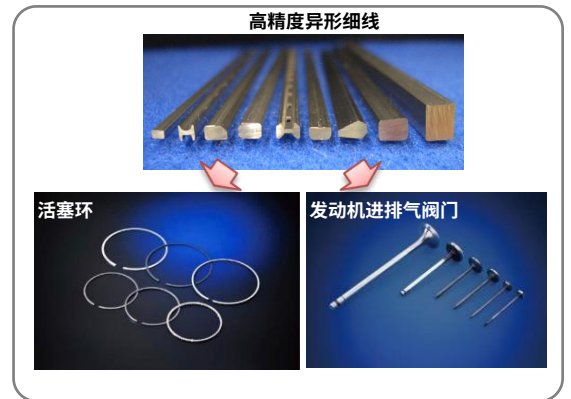
- **ZMG®232G10**: 空气, 水蒸气中的高耐氧化性, 耐剥离性  
Surface oxidation layer grows slow in air and steam.
- **SUH660**: 适用于高压气体保安法中规定高压氢气环境  
It can be used for high-pressure hydrogen.
- **ASL®817**: 保有高硬度, 严苛润滑环境下也有高耐磨性  
Its high hardness contributes to wear resistance under poor lubrication.

### 用途

- 固体氧化物型燃料电池/水电解装置  
Solid oxide fuel cell/electrolysis cell
- 氢压缩机  
Hydrogen compressor
- 氢发动机  
Hydrogen engine

### 应用例 氢发动机零件

Application: parts for hydrogen engine

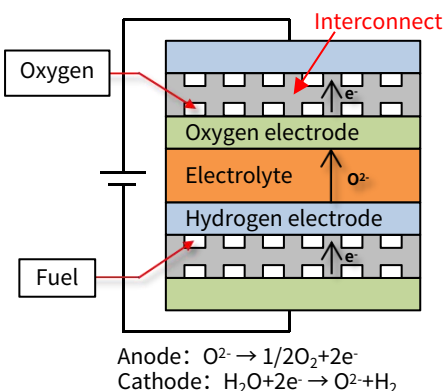


### 应用例 固体氧化物型水电解装置

Application: solid oxide electrolysis cell

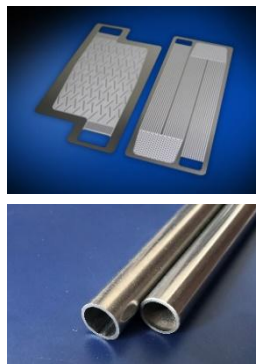
#### SOEC基本构造

Schematic structure of SOEC



#### [ZMG®232G10]

Upper: interconnect  
Lower: tube



#### 耐高温氧化性的比较

Oxidation resistance at high temperature

