# MG-S90B91 TRUSTARC™

**Solid wire for 9%Cr-1%Mo-V-Nb steel**

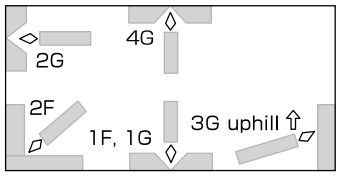
**Features:**
- Applied for ASTM A387 Gr.91 and equivalents
- Excellent creep rapture strength

**Classification:** AWS A5.28 ER90S-B91

**Shielding gas:** Ar-2~5%$O_2$, Ar-5~20%$CO_2$

**Polarity:** DCEP

**Welding Positions:**




## Packaging data

| ϕ mm | Spool | |
|---|---|---|
| 1.2 | 10kg | 20kg |
| **Volume mm** | 240W, 110H, 230L | 280W, 110H, 270L |

## Composition (wire mass%)

| | Typical | Guaranty [a] |
|---|---|---|
| **C** | 0.12 | 0.07~0.13 |
| **Si** | 0.23 | 0.15~0.50 |
| **Mn** | 0.63 | 1.20 |
| **P** | 0.004 | 0.010 |
| **S** | 0.005 | 0.010 |
| **Ni** | 0.15 | 0.80 |
| **Co** | 0.41 | - |
| **Cr** | 8.38 | 8.00~10.50 |
| **Mo** | 0.98 | 0.85~1.20 |
| **Cu** | 0.01 | 0.20 |
| **Nb** | 0.06 | 0.02~0.10 |
| **V** | 0.18 | 0.15~0.30 |
| **N** | 0.04 | 0.03~0.07 |
| **Al** | <0.01 | 0.04 |
| **Mn+Ni** | 0.78 | 1.50 |

Note: [a] Single values are maximum.

## Welding parameters (A)

| ϕ mm | 1F, 1G, 2F | 2G, 3G uphill, 4G |
|---|---|---|
| 1.2 | 260~320 | 140~200 |

## All-weld mechanical properties

| | Typical | Guaranty |
|---|---|---|
| **0.2%YS (MPa)** | 590 | 414min. |
| **TS (MPa)** | 730 | 621min. |
| **El on 4d (%)** | 23 | 15min. |
| **IV 0℃ (J)** | 30 | - |
| **PWHT (℃xh)** | 760x2 | 760±15x2 |
| **SG** | Ar-5%$CO_2$ | Ar-5%$CO_2$ |