

Progress of the development and manufacture of CGSE sub-systems in Lanzhou

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Subsystems Produced at Lanzhou

- **Gas Valve Box (GVB)**
- **Liquid Valve Box (LVB)**
- **Cryostat**
- **Simulator**
- **LHe Dewar**

Progress at Lanzhou

<i>Item</i>	<i>Pre Assembly</i>	<i>Clean</i>	<i>Welding</i>	<i>Leakage test</i>	<i>MIL</i>	<i>Vacuum</i>
<i>GVB</i>	OK	OK	70%			
<i>LVB</i>	OK	95%	10%			
<i>Cryostat</i>		30%	30%			
<i>Simulator</i>	OK	95%	30%			
<i>LHe Dewar</i>	—	90%	70%	30%	OK	

Gas Valve Box



Pre Assembly: OK

Clean: OK

Welding: 70% Finished

Next steps: Leakage test, MIL, Vacuum

Liquid Valve Box



Liquid Valve Box



Frame of Cold Shield

Liquid Valve Box

✚ *Pre Assembly: OK*

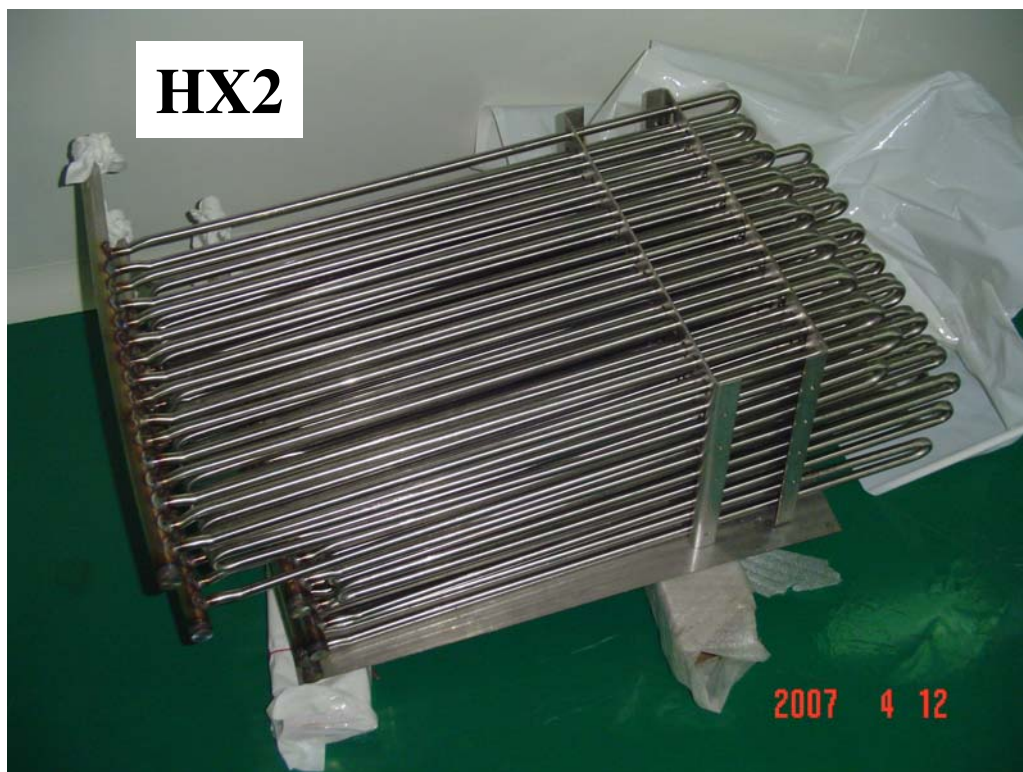
✚ *Clean: 95% Finished*

✚ *Welding: 10% Finished*

✚ *Next steps: Leakage test, MIL, Vacuum*



- Heat exchanger HX1, tubes has been cleaned, welded and the leakage is checked.
- HX1, shell has been cleaned, welded, the leakage is testing.....



■ HX2 has been cleaned, welded,
next step, check leakage...

■ HX3 has been cleaned, welded,
the leakage is testing.....

Cryostat

➤ When the leakage of
HX1 and HX3 meets the
requirement

Next steps

- *Pre Assembly*
- *Clean components*
- *Welding*
- *Leakage test*
- *MIL*
- *Vacuum*

Simulator



Simulator



Cleaned LHe Vessel

Simulator

- ✚ Pre Assembly: OK**
- ✚ Clean: 95% Finished**
- ✚ Welding: 30% Finished**
- ✚ Next steps: Leakage test, MIL, Vacuum**

LHe Dewar



LHe Dewar



LHe Dewar

- ✚ Clean : 90% Finished*
- ✚ Welding: 70% Finished*
- ✚ The leakage of inner shell and connected tubes is testing....*
- ✚ Next steps: Leakage test of outer shell, Vacuum*