

ViberLaser Reference

Application Demonstration

Application Scenarios & Testing Results

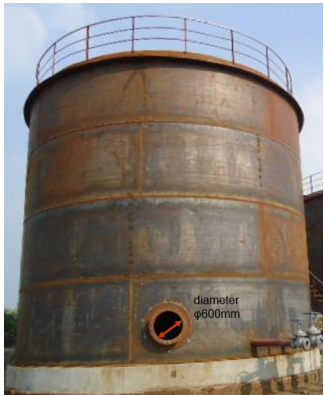
VIBERLASER

Industry: Oil tank

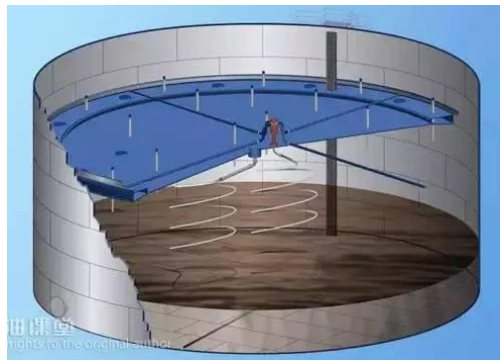
Description: 1~1.5mm SS sheets are welded together to form a floating roof(cannot get actual product photo), butt joint, and T joint, welding is done in the tank.

Prior art: Arc welding leads poor working conditions, low welding efficiency.

Opportunity: Laser welding gets better working conditions and higher efficiency, the smallest size in the market to enter into the tank (entrance diameter $\phi 600\text{mm}$)



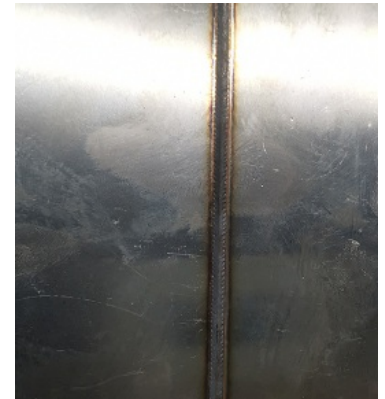
Oil Tank



Floating roof



T joint welding test done



Butt welding test

Application Scenarios & Testing Results

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Industry: Railway

Description: Train roof repair welding, 2mm SS butt joint

Prior art: Automatic laser welding, no finalized repair welding solution, still in R&D phase

Opportunity: Laser welding gets good weld quality, assumed higher stability and durability



Application Scenarios & Testing Results

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Industry: Truck Container

Description: Container corrugated plate, SS corner joint

Prior art: TIG welding → Issue: Low efficiency, big distortion.

Opportunity: Laser welding reach higher efficiency, lower distortion



Application Scenarios & Testing Results

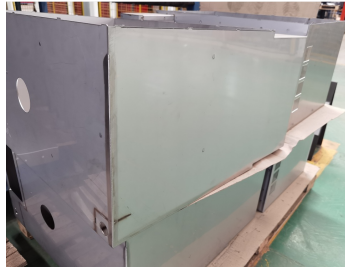
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Industry: Medical

Description: Cabinet, 1~2mm SS corner joint

Prior art: TIG welding → Issue: Big distortion, affecting assembly accuracy

Opportunity: Laser welding gets good weld quality, lower distortion



Application Scenarios & Testing Results

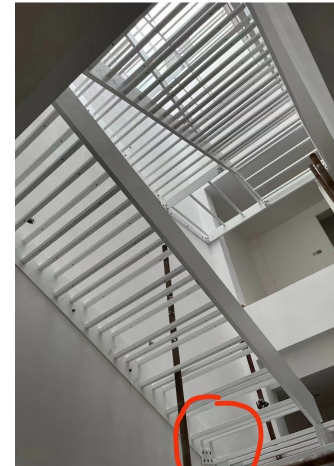
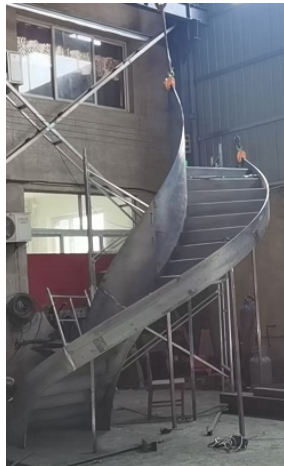
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Industry: General Industry

Description: Yacht step, 2~3mm SS, T joint

Prior art: Big distortion, high cost of manual polishing to get a smooth surface

Opportunity: Laser welding can get good weld quality (manual polishing is not needed) and lower distortion.



Application Scenarios & Testing Results

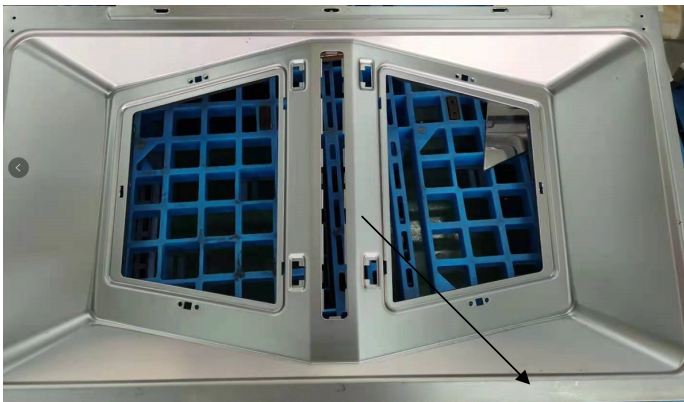
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Industry: Kitchen and Bathroom

Description: Kitchen ventilator hood, 0.8~1mm SS corner joint

Prior art: TIG welding leads low efficiency, big distortion, high cost of manual polishing

Opportunity: Laser welding can get good weld quality (manual polishing is not needed), high efficiency, and low distortion.



Kitchen ventilator



Basin



Application Scenarios & Testing Results

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Industry: Sheet Metal

Description: ~1mm SS, tube to tube intersecting weld

Prior art: TIG welding leads big distortion, high cost of manual polishing to get a smooth surface

Opportunity: Laser welding can get good weld quality (manual polishing is not needed) and low distortion.



Application Scenarios & Testing Results

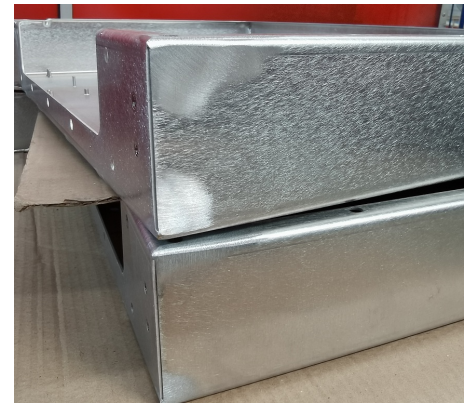
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Industry: Sheet Metal

Description: Cabinet frame

Prior art: TIG welding leads low efficiency, high requirement of welder, big distortion

Opportunity: Laser welding can get high efficiency and low distortion, having low requirement of welder.



Application Scenarios & Testing Results

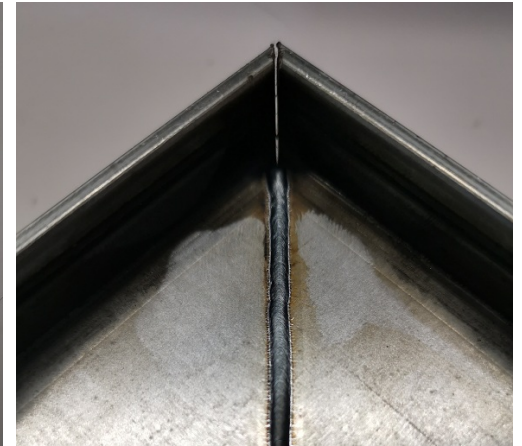
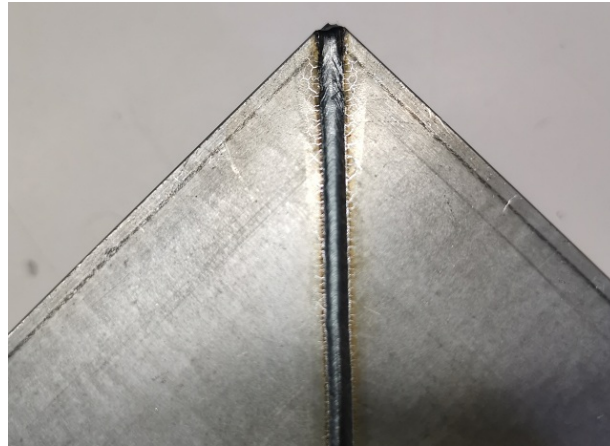
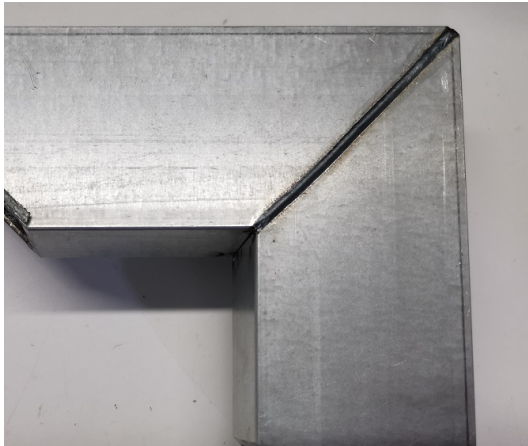
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Industry: Sheet Metal (Low-end)

Description: Curtain wall, carbon steel, 1.8mm, butt joint with wire feeding

Prior art: TIG welding → Low efficiency, high requirement of welder

Opportunity: Laser welding can get high efficiency and have low requirement of welder.
Small and portable for outdoor operation.



Application Scenarios & Testing Results

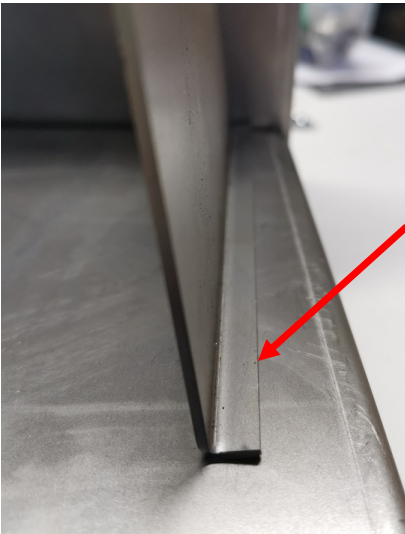
VIBERLASER

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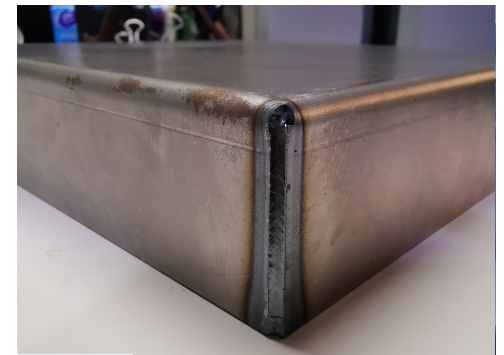
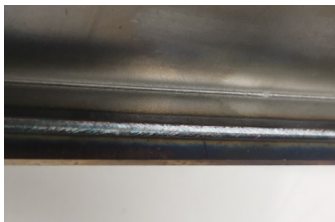
Description: Cabinet frame, carbon steel, 2mm, edge welding joint and corner joint with wire feeding

Prior art: TIG welding → Low efficiency, high distortion

Opportunity: Laser welding can get high efficiency and low distortion



Cabinet rack



Cabinet cover

Thank you!

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