

SHANDONG MESHINE THERMALTECH CO., LTD.

WORLD-LEADING THERMAL TECH&EQUIP PRODUCTION R&D BASE

2024

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SHANDONG MESHINE THERMAL TECH CO., LTD.

Locates in Gaoqing , ZIBO City, Shandong Province, China;

- Plant area 92000 m², Workshop area 40000 m²
 - Fixed assets **22 million USD**, and **5** advanced International autoproduction lines;
- Staff over 80 of 20% intermediate and senior technical personnel;



API 5CT , API Q1&ISO9001 QMS and HSE certificate;



COMPANY PROFILE

MESHINE SHANDONG MESHINE THERMAL TECH CO., LTD. -



MESHINE For a before life SHANDONG MESHINE THERMAL TECH CO., LTD.

MESHINE THERMAL



Devoting to

Petroleum Extraction &geothermal energy Exploitation Territory

Hi-end Equip Manufacturing



Defining as

Leading Thermal Development Hi-end Equipment

Direction



Building

World-class Thermal Development Equipment Manufacturing R&D Base

Objective









SHANDONG MESHINE THERMAL TECH CO.,LTD. -

Main Products

ANNUAL OUTPUT 0.6million м

VIT&VIC&AIT

ANNUAL OUTPUT
0.1 million t

API TUBING & CASING

ANNUAL OUTPUT 0.5 million PCS

COUPLING

<u>ΑΝΝUAL OUTPU</u>T 60,000 Τ

TUBING&DRILL PIPE UPSET

ANNUAL OUTPUT 200,000 M

HDPE/EXPE TUBING

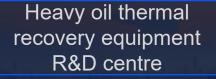
ANNUAL OUTPUT 20,000 T

NON-API TUBING&CASING&COUPLING



SHANDONG MESHINE THERMAL TECH CO., LTD

Thermal Development Institute



New VIT&VIC R&D

Heavy oil thermal Recovery technology

Heavy oil thermal recovery equipment

Geothermal development equipment R&D centre

National National computer Patent software

Total 16 items, including 2 invention patents

7 Items

Ten more new products

VIT&AIT&GIT Ground thermal transfer pipeline

A professional technical team;

30 Years experience in heavy oil thermal recovery and VIT R&D;

MESHINE SHANDONG MESHINE THERMAL TECH CO., LTD.

16 National patents; 2 Invention patents;



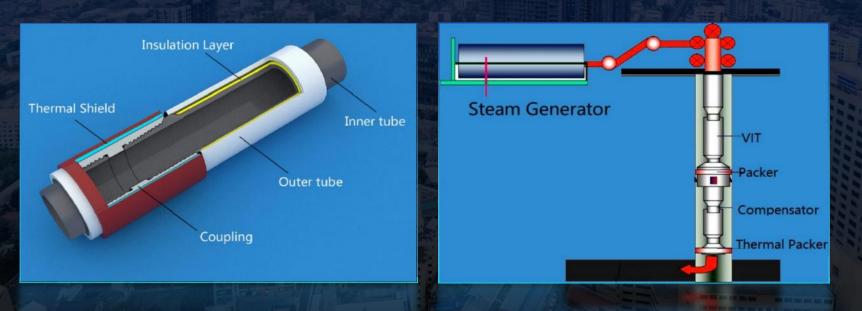
SHANDONG MESHINE THERMAL TECH CO., LTD.

Core Products---Vacuum Insulated Tubing and Casing





VIT and thermal transfer pipeline based on this technology, reached the international advanced level.



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VIT product type:

2

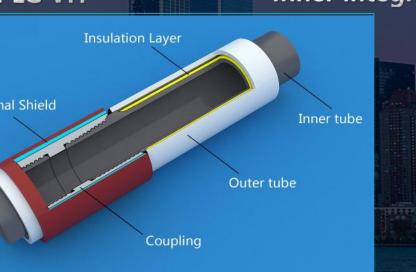
Spec.	73*40	89*50	114*62	114*76	127*76	139*101					
	177*124	219*161	244*177	298*244							
Grade	J55	N80-1	N80-Q	L80-1	P110	Anti-CO2\H2S material					
Structur e	Outer CPLO	connector	Inner CPLO	G connector	Inner Integral connector						
Connect ion	BC	EU	LC	SC	MS-HT	VAM series					
	Integral TS-HP										
Insulatio n	VIT8	VIC	АП								
Others	Based on customer requirements, research and design of different specifications, steel grade (material), structure of VIT&VIC										
S&T Project	Undertake Science Technology projects and test bases for S&T projects										

Thermal Shield

Outer tube

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Aerogel Insulation Liner Inner tube Outer tube Coupling Inner tube Inner integral VIT **Outer CPLG VIT Insulation Layer Thermal Shield**



Inner CPLG VIT

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Maximum and most comprehensive

The maximum and most comprehensive specification of VIT bushing in the world



R&D and Customized

Develop and design the corresponding VIT according to the customer's well condition, process and demand SHANDONG MESHINE THERMAL TECH CO., LTD

VIT&VIC

Reducing heat loss

Improving injection steam quality

Extending operation cycle Improving OSR

Heavy oil thermal recovery; CSS; Steam flooding; SAGD; **Offshore oil** production;

0.8

0.7

0.4

0.3

0.2

Steam quality

Lower casing temp&reducing thermal expansion

Avoiding thermal well casing damage

Maintaining transfer oil temp Effectively inhibit paraffin crystallization and frosting

VIT

TUBING

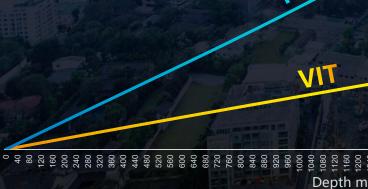
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30

25





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Unique internal and external product identification transformation system to ensure the traceability of product quality;



The internal and external pipe automatching system with independent intellectual property rights ensures the accuracy and precision of matching;

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> > 隔热油管内外管自动测长匹配控制系统

《计算机软件保护条例》和《计算机软件著作权登记办法》的

V1.0 权人: 山东美生热能科技有限公司

> 2020年06月01日 原始取得

规定,经中国版权保护中心审核,对以上事项予以登记,

全部权利 2020SR0996199

开发完成日期: 2020年06月01日

方式,

款著發字第5874895号



SHANDONG MESHINE THERMAL TECH CO., LTD.



Automatic blasting equipment recorded by computer of the total blasting time to determine the quality Blasting and rust removal level up to SA2.5 to ensure the radiance of the product surface

SA



Self-developed blasting quality control system software declared the national computer software copyright



SHANDONG MESHINE THERMAL TECH CO., LTD.



Inner and outer pipe and insulation material heating and degassing treatment



To ensure that there is no adsorbed gas, oil and vacuum pollution in the process of application



Furnace temperature control system with functions of multi-point temperature control, slow rise and fall and temperature recording, and precise heating control



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AU TO

Automatic insulation layer wrapping machine; Effectively improve work efficiency, improve the cleanliness of insulation layer;



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The girth weld welding equipment is independently developed for the combined weld type



The welding operation control system is independently developed and obtained the national computer software copyright

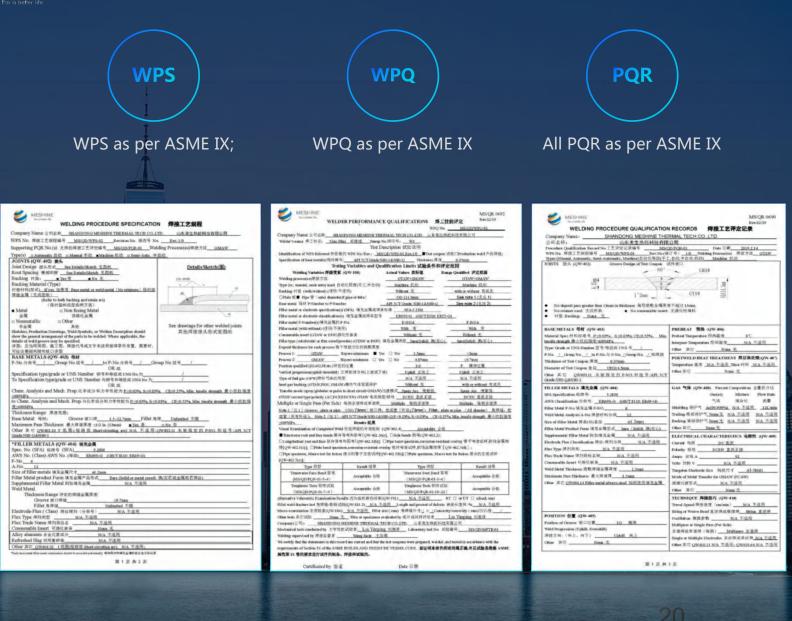


Welding machine and wire feeder adopted international advance EWM



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PRODUCT INTRODUCTION



SHANDONG MESHINE THERMAL TECH CO., LTD.



Jointly developed with Chinese Academy of Sciences the special "mechanical pump + Roots pump + molecular pump" high-end vacuum unit

The three-stage vacuum operation system declared the national computer software copyright

Vacuum equipment with strong capacity and stable performance. Vacuum capacity reach 10-5Pa The first vacuum system and pipes in China are made of stainless steel, which improves the vacuum degree of the product.





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The self-designed "vacuum instantaneous plugging technology" won the national utility model patent, which can effectively improve the qualified rate of product plugging and solve the problem of "stalling and failure" in the drilling operation of pipe string



Plug welding with PT inspection for 100%

2020年08月04日



MESH



Auto apparent thermal conductivity device detects the insulation performance, real-time display of inner & outer wall temperature, heating power & apparent thermal conductivity



100% apparent thermal conductivity test, and achieve permanent traceability



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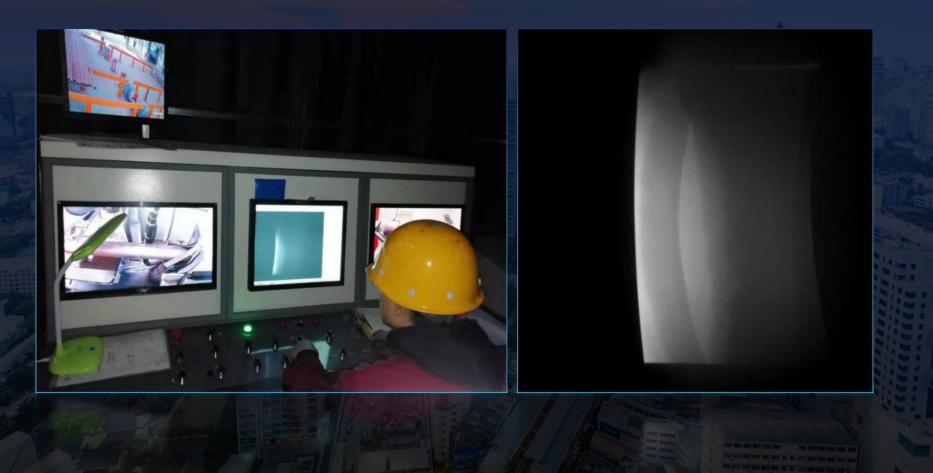


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Girth weld inspection apply US PELLMAN & French THALE technology; Strictly following GB/T3323.2(EN1435);



X-Ray online inspection With 100% and 360°



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Core Products---Tubing and Casing



MESHIN For a better li

API OCTG Products

Production Lines:

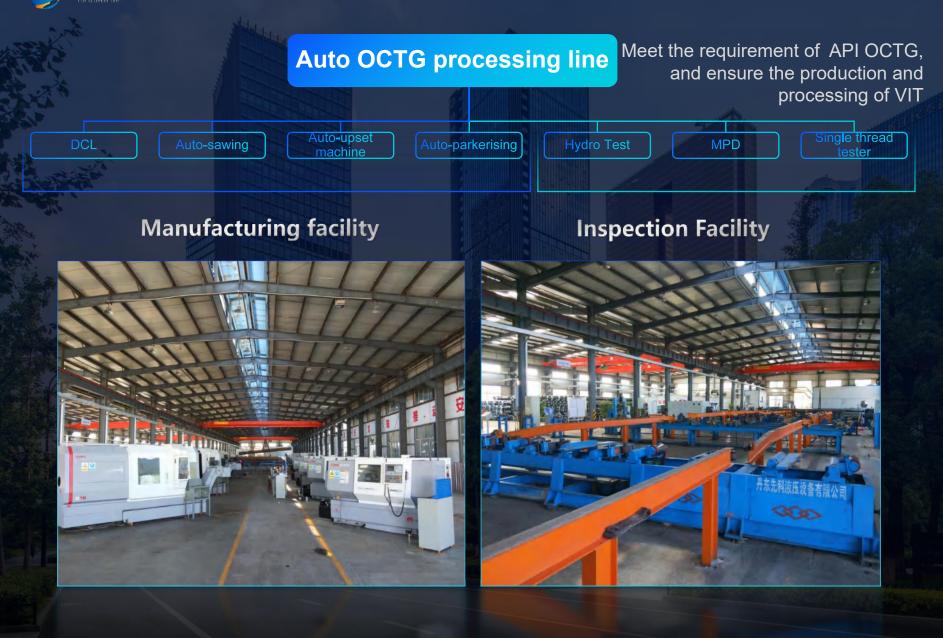
Upset line, Coupmling and parkerising line, OCTG threading ling line;

Spec.: Tubing:1.9 -- 4-1/2in; Casing:4-1/2--9-5/8in;

Grade: J/K55,N80 1/Q, L80-1,L80-13Cr, P110 as per API PSL1/2;

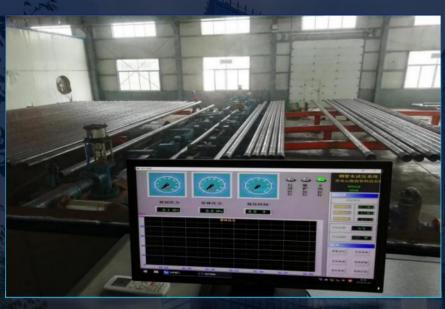
Standard: API 5CT, API 5B and customer requirments;

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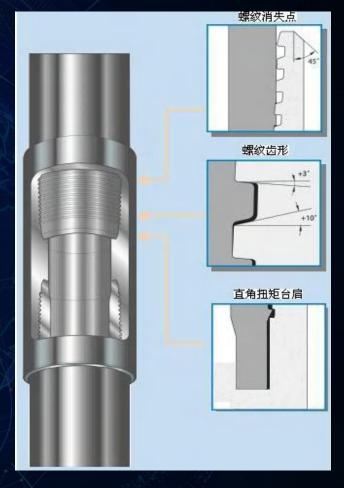
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Premium Connection Tubing—MS-1T(BC-HT)

 The right Angle torque shoulder can realize accurate control of the buckling torque and reduce the circumferential stress of the threaded joint;
 The thread can withstand large torque, and the sleeve can be rotated to make it run smoothly;
 The tooth shape of the thread is the same as the API partial ladder thread, which can be exchanged with BC;
 Unique thread interference fit design, thread sealing performance and strong anti-sticking ability.





Premium Connection Tubing—MS-2T(VAM TOP)

MS-2T is multiple connection and interchangeable

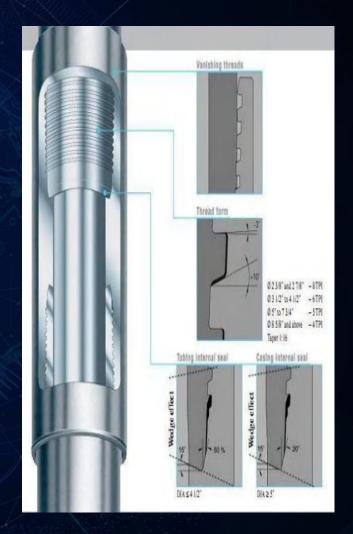
with vam top;

Main advantages:

1.Good anti-bending and anti-compression and good torque performance;

2. The gas seal performance is stable and reliable under various compound loads;

3. Easy for application and repairement;



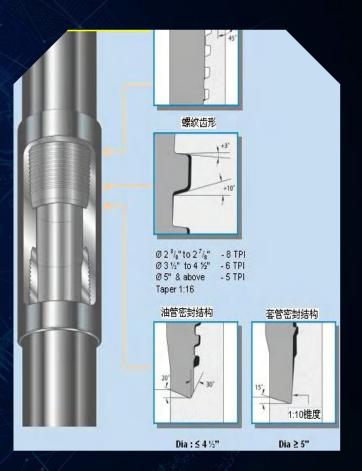


Premium Connection Tubing—MS-3T(NEW VAM)

1)MS-3T is a versatile threaded tubing connectorthat is interchangeable with the NEW VAM;2)It has high connection strength and good sealingperformance;

3)This type of design has been widely used in oil

fields around the world;





Premium Connection Tubing—MS-5T(HYDRIL CS)

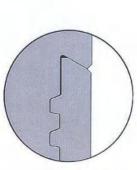
1)The performance of MS-5T is similar to Tenaris' Hydril CS and Hunting TS-HP;

2)The sealing structure of MS-5T is interference fit of metal surface, and the structure of internal and external sealing surface ensures good sealing effect under extremely harsh conditions;

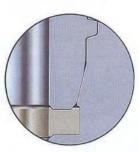
3)The double 90° shoulder design of the MS-5T gives the thread excellent torsional and bending resistance.

4) MS-5T has the advantages of fast and convenient make up and break out, high tensile strength, and good tensile, compressive and bending performance.





30° External Shoulder



Metal-to-metal seal with optional seal ring for plastic-coated applications



Coated Tubing—EXPE Tubing

Wear-resistant anticorrosive tubing is a composite tubing made by lining the inner wall of tubing with ultra-high molecular weight poly, through the special process of cold rolling and reducing diameter and traction into the inner cavity of API tubing, and then through thermal failure, so as to completely fill the annular gap between the tubing and the liner to form interference connection. The wear-resistant anticorrosive lining tubing has excellent wear resistance and excellent flexibility, which can effectively prevent the damage of the lining pipe by oil well operation or cable. It can not only be used in all oil Wells

where there are problems of tube and rod offset wear or corrosion, but also in all kinds of oil, water and gas Wells.



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QUALITY CONTROL

SHANDONG MESHINE THERMAL TECH CO., LTD.

PRODUCT QUALITY CONTROL



As per API Q1&ISO9001 to do supplier certificate review and annual audit

Process Control

Key resources purchasing process under control by company stuff

Incoming Control

Spectral analyzer, automatic impact testing machine mechanical performance universal testing machine, hardness tester, optical projector and so on a variety of testing and analysis equipment



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QUALITY CONTROL



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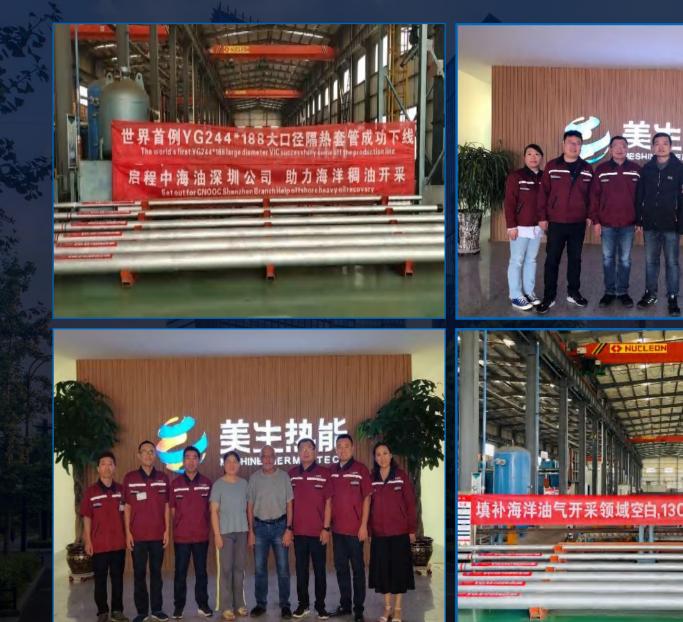
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AFTER-SALE SERVICE

HINE SHANDONG MESHINE THERMAL TECH CO., LTD. -

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AFTER-SALE SERVICE

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Pass Sinopec qualification---become
SINOPEC VIT/VIC qualified supplier;
Win the bidding of CNOOC 2020-2023
Procurement framework and becoming
CNOOC TIANJIN VIT/VIC preferred supplier;
Win the bidding of CNOOC SHENZHEN
244*188 VIC and 13Cr-L80 VIT of filling in
the gaps in the field of China;

- South America:Columbia and Venezuela;
- North America:SAGD of Canada oil sand;

AFTER-SALE SERVICE

SHANDONG MESHINE THERMAL TECH CO., LTD. -



Technical Sales Service

Professional service team with technicians and sales providing fully service for clients

Providing suggestion for profucts application plan if needed Providing site technical service and training If needed;

Feedback within 12 housr and arrivie site to solve within 24 hours in China;





SHANDONG MESHINE THERMAL TECH CO., LTD.

THANK YOU

info@meshinethermal.com