

# STAINLESS STEEL **WIRES**



BAR | WIRES | WELDING WIRES



# COMPANY PROFILE

## Introduction

As a distinguished Indian company with a legacy of 5 decades in the Stainless Steel Industry, Venus has established itself as a leading manufacturer and exporter of premium stainless steel wires and bars.

Our global footprint spans over 50+ countries, reflecting our steadfast commitment to delivering superior products.

Delve into our meticulously curated range, underpinned by a legacy of redefined industry benchmarks through unwavering dedication to quality and innovation.

### Mission

With our Forward thinking and Passion for Service and Innovation, we strive to help our customer optimize their productivity and build the most advanced products for the future world.

### Vision

To be a global leader in stainless & special steel long products known for its quality, continuous innovation, and impeccable service level.



# WHY CHOOSE VENUS WIRES?

## Uncompromising Quality

Quality is the essence of our culture; it defines everything we do.

## Seamless Service

We provide global customers with an exceptional experience, akin to having a next-door vendor.

## Sustainable Solutions

Our products are engineered with the most sophisticated and sustainable technologies, contributing to a better world.

## People-Powered

Our dedicated team forms the backbone of our success, and we pride ourselves on the industry's lowest attrition rate.

## Specialized Expertise

With over 5 decades of dedicated focus on manufacturing stainless and special steel wires and bars, we are global leaders in our domain.

## Continuous Innovation

We invest in research and development, cutting-edge machinery, and systems, and nurturing our skilled workforce to progress continually.

## Customer-Centric Approach

At the heart of our operations lies a passion for helping our customers achieve their goals and become industry leaders.



# APPROVALS

## System Certifications

ISO 9001:2015 | ISO 14001:2004 | ISO 45001:2018 | ISO IATF 16949:2016



## Product Approvals

VDTUV 1153 | CE | DB | CWB | NPCIL | RDSO | DNV GL



# SUSTAINABILITY

At Venus Wires Industries, sustainability is an integral part of our core values and business philosophy. As a leading player in the Stainless Steel Industry, we recognize our responsibility to prioritize environmental, social, and economic considerations in all aspects of our operations. With a commitment to creating a greener future, we have embraced sustainable practices that not only drive our success but also contribute positively to the communities we serve and the planet we call home.



Safety and sustainable living for our employees



Carbon management



Green energy



Circular economy



Energy monitoring and efficiency



Water and environment conservation



Social corporate responsibility



# THICK WIRE

COARSE WIRE



## ALLOYS

<b>AISI</b>	201	202	204Cu	302	302HQ	303	304	304L	305	-	309		
<b>Wr. No.</b>	1.4372	1.4373	1.4597	1.431	1.4567	1.4305	1.4301	1.4307	-	1.4828	-		
<b>AISI</b>	309S	310/310S	314	316	316L	316Ti	317/317L	321	UNS S40910	UNS S40975	UNS S40945		
<b>Wr. No.</b>	-	1.4845	1.4841	1.4401	1.4571	1.4571	1.4438	1.4541	1.4512	1.4516	-		
<b>AISI</b>	410	-	420	-	430	430F	431	434	440C	446	630	2304	2205
<b>Wr. No.</b>	1.4003	1.4106	1.4021	1.4036	1.4016	1.4105	1.4057	1.4113	-	-	1.4542	1.4362	1.4462

## WE ALSO OFFER

- Customized chemistry.
- Higher nickel variants of the grade are available on request.

## SIZE RANGE

0.70 mm to 22 mm (0.028" to 0.870")

## FINISH AND TEMPER

**Annealed** - 1. Bright 2. Matt **Soap Drawn** - 1. 1/8 hard 2. 1/4 hard 3. 1/2 hard 4. 3/4 hard 5. Full hard **Bright drawn** - 1. 1/8 hard 2. 1/4 hard 3. 1/2 hard 4. 3/4 hard 5. Full hard

## SURFACE CONDITION

Extra clean, clean and with residual lubricants as desired for the application.

## APPLICATIONS

Medical, Formed and Bent components, Architectural Agriculture (Wine Yard), Dowel pin, Food grade conveyor belts, Exhaust hardwares, Hardware belts and pins. Balls, Conveyor Belts, Fasteners, Fencing, Filters, Hangers, Lashing, Nails, Kitchen Appliances, Rivets Roofing Hooks, Screens, Staples, Wool, Wire mesh, Wire Ropes, Welding etc.

# FINE WIRE



## ALLOYS

<b>AISI</b>	201	202	204Cu	302	304	304L	305	309	309S	Inconel 625
<b>Wr. No.</b>	1.4372	1.4373	1.4597	1.4310	1.4301	1.4306	1.4303	1.4828	1.4332	2.4806
<b>AISI</b>	310	310S	314	316	316L	316Ti	317L	321	430	2205
<b>Wr. No.</b>	1.4841	1.4842	1.4841	1.4401	1.4404	1.4571	1.4498	1.4541	1.4016	1.4462

We also offer customized chemistry.

## SIZE RANGE

0.15 mm TO 1.00 mm (0.004" to 0.035")

## SUPPLY CONDITION

Finish with impeccable surface quality, roundness and tighter tolerance

## TEMPER

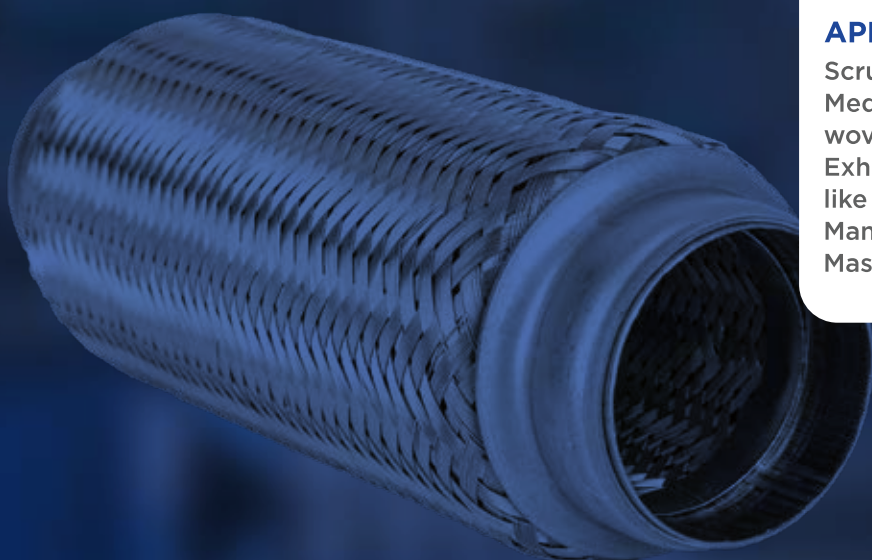
Annealed or Spring hard (stress relieved - optional)

## PACKAGING

On Spools DIN 125, DIN 160, DIN 200, DIN 250, DIN 355, BS 60, B10

## APPLICATIONS

Scrubber, Shots, Brushes. Staples, Wire Rope, Medical needle, Stents, filters, woven mesh component, Braided hose, Exhaust component, knitted mesh components like seals and damping elements. Manufacturing, Fencing, Mascara Brush (Cosmetic Industry) etc.



# FREE MACHINING WIRE

Wires specially designed to guarantee the lowest cycle time, maximum repeatability, and no stoppages in order to maximise production efficiency.

## ALLOY

<b>AISI</b>	-	303	303 CU	304	-	416	420	430 F
<b>Wr. No.</b>	1.4567	1.4305	1.4570	1.4301	1.4441	1.4005	1.4021	1.4104

We also offer customized chemistry.

## SIZE RANGE

- For Wires : 1 mm to 7 mm
- Size tolerance : h8, h9

## SUPPLY CONDITION

Bright non degreased oil treated drawn wire  
Soap coated matt finish

## PEELED OR SHAVED WIRE ON REQUEST

## EDDY CURRENT TESTING POSSIBLE ON REQUEST.





# COLD HEADING WIRE



The high precision cold heading quality wire are produced from selected wire rods, customized special coatings suitable for high speed cold heading, efficiently managed process control and monitoring.

## ALLOY

<b>AISI</b>	304/304L	305	316/316L	316Cu	430	304Cu
<b>Wr. No.</b>	1.4567	1.4303	1.4404	1.4578	1.4016	-

**NOTE:** \*9% Ni & 3% Cu

\*\*8% Ni & 2% Cu

Customized chemistry  
Higher nickel variants grades are available.

## SIZE RANGE

- 2.00 mm to 22mm

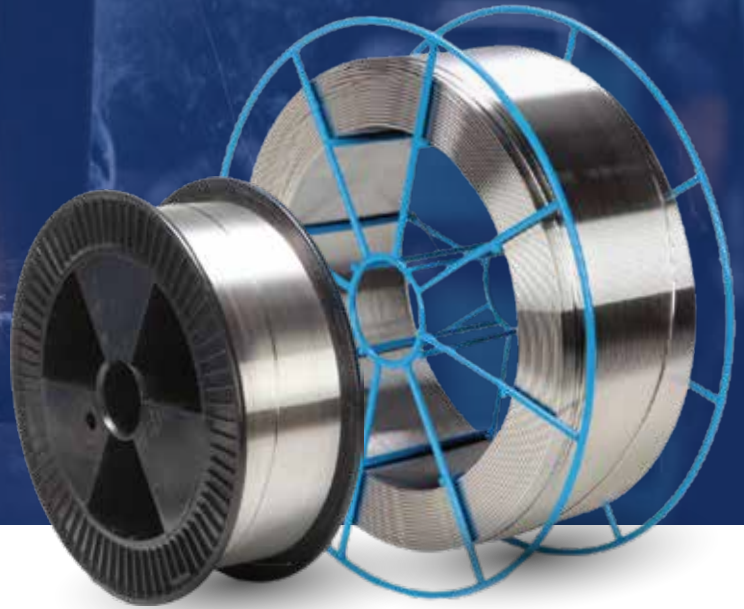
## SUPPLY CONDITION

- Annealed at final diameter
- Cold drawn and Solution annealed
- Annealed at intermediate stage and pre coated
- Annealed at intermediate stage and pre coated Skin passed to final diameter
- Drawn in grease
- Solution Annealed
- Peeled and Solution Annealed

## AVAILABLE COATING

Venus developed lubrication solutions for the cold heading application based on hands on experience and research on basis of forming operation, shelf life, tool life & cleanliness requirement.

# MIG WIRE



## ALLOYS

<b>AWS</b>	307Si	308H	308L	308LSi	309L	309LMo	309LSi	310	316L	316LSi	312
<b>Wr. No. (EN)</b>	1.4370	1.4316	1.4316	1.4316	1.4332	1.4459	1.4332	1.4842	1.4430	1.4430	1.4337
<b>AWS</b>	317	317L	318Si	347	347Si	385	410	410NiMo	420L	630	
<b>Wr. No. (EN)</b>	1.4449	1.4438	1.4576	1.4551	1.4551	(20 25 5 Cu L)	(13)	(13 4)	1.4028	-	
<b>AWS</b>	409Nb	430	430LNb	430LNbTi	430LNbW	439	2209	2594	NiCr-3	NiCrMo-3	
<b>Wr. No. (EN)</b>	-	1.4016	1.4511	1.4509	1.4511	1.4509	(22 9 3 N L)	(25 9 4 N L)	2.4806	2.4831	

We also offer customized chemistry.

## DIAMETER

<b>MM</b>	0.60	0.80	0.90	1.00	1.20	1.60
<b>INCH</b>	0.025	0.030	0.035	0.040	0.045	0.062

## SURFACE FINISH

Bright, Matte & Semi Bright

## PACKAGING ON SPOOLS



We also offer customized packaging.

# MIG WIRE FOR ROBOTIC WELDING



## VENUS DRUM-PACK FOR CONTINUOUS MIG WELDING

Venus offers wire systems for robotic, automatic, and semi-automatic MIG welding applications. This straight, twist free wire system offers increased productivity and offers a lot of welding advantages.

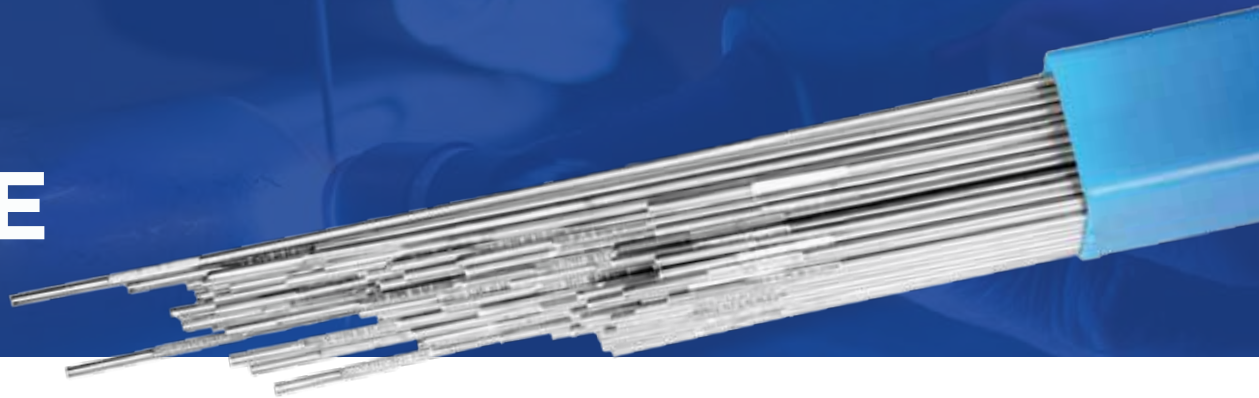
## VENUS DRUM PACK

DRUMS	DRUMS	760 METAL REEL
100 - 125 Kg (200 - 250 Lbs)	200 - 250 Kg (450 - 550 Lbs)	200 - 250 Kg (450 - 550 Lbs)

## VENUS DRUM PACK SPECIAL FEATURES

VENUS DRUM FEATURES	USER BENEFIT
Easy handling	Reduced change over time.
Reduce downtime	Increased productivity.
Process stability	Part to part consistent weld
Consistent weld quality	Reduction in rework, weld leakages and scrap
Better wire feedability	Reduction in line stoppage

# TIG WIRE



## ALLOYS

<b>AWS</b>	307Si	308H	308L	308LSi	309L	309LSi	309LMo	310	312	316L	316LSi
<b>Wr. No. (EN)</b>	1.4370	1.4316	1.4316	1.4316	1.4332	1.4332	1.4459	1.4842	1.4337	1.4430	1.4430
<b>AWS</b>	317L	318Si	347	347Si	385	410	410NiMo	420	630		
<b>Wr. No. (EN)</b>	1.4438	1.4576	1.4551	1.4551	(20 25 5 Cu L)	(13)	(13 4)	1.4028	1.4542		
<b>AWS</b>	430	430LNb	2209	2594	NiCr-3	NiCrMo-3					
<b>Wr. No. (EN)</b>	1.4016	1.4511	(22 9 3 N L)	(25 9 4 N L)	2.4806	2.4831					

We also offer customized chemistry.

## DIAMETER

<b>MM</b>	0.80	0.90	1.00	1.20	1.60	2.00	2.40	3.20	4.00	5.00
<b>INCH</b>	0.030	0.035	0.040	0.045	0.062	0.080	0.093	0.125	0.156	0.1875

**LENGTH AVAILABLE** - 36 inches/1000 mm

**IDENTIFICATION** (Customized length available on request)

Grade & size embossed on both ends of rods for diameter 1.60 mm (0.062") & above.	
Customized embossing like heat number, brand name, batch number, etc. possible on request.	

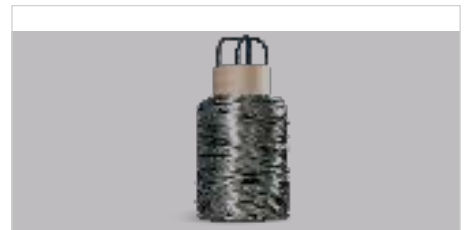
## PACKAGING



Packed in cardboard tube or plastic tubes (1 kg. to 10 kg.), (2 lbs to 22 lbs)

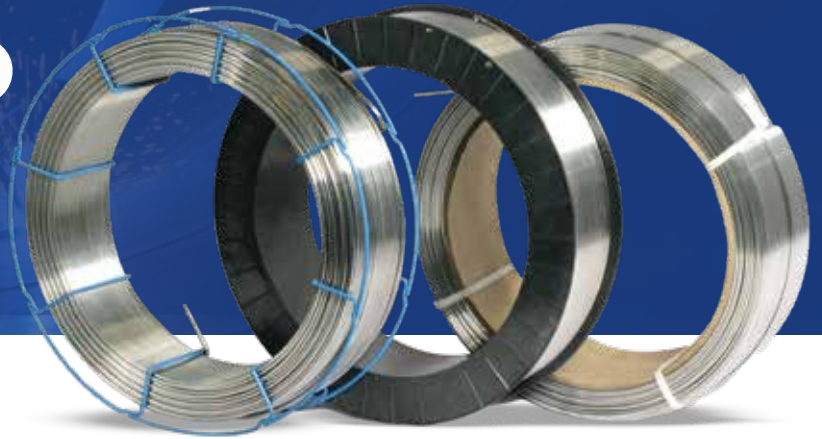


Further packed cardboard boxes. (25 kg / 50 lbs)



Or supplied wire on tubular carrier

# SUBMERGED ARC WIRE



## ALLOYS

<b>AWS</b>	307Si	308L	309L	309LMo	312	316L
<b>Wr. No. (EN)</b>	1.4370	1.4316	1.4332	1.4459	1.4337	1.4430

<b>AWS</b>	317L	347	410NiMo	420	430	2209	2594
<b>Wr. No. (EN)</b>	1.4438	1.4551	(13 4)	1.4028	1.4016	(22 9 3 N L)	(25 9 4 N L)

We also offer customized chemistry.

## DIAMETER

<b>MM</b>	1.60	2.00	2.40	3.20	4.00
<b>INCH</b>	0.062	0.080	0.093	0.125	0.156

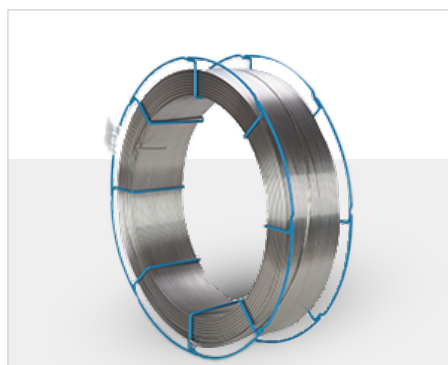
## SURFACE FINISH

Bright & Matt

## PACKAGING ON SPOOLS



Layer wound coils of (paper core)  
25kg/50 - 60 lbs

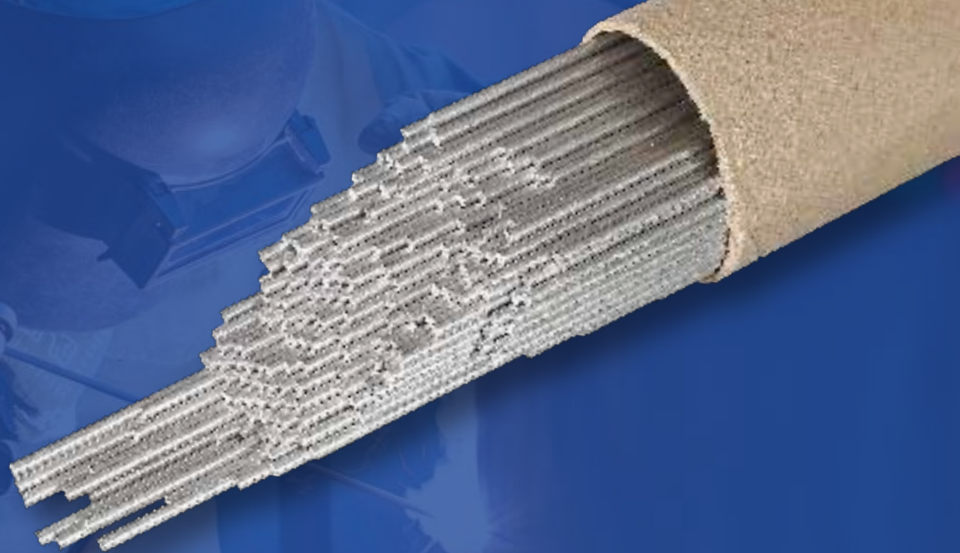


Basket spools K415 of  
25kg/50 - 60 lbs



Plastic spools H 400 of  
25kg/50 - 60 lbs

# CORE WIRE



FOR MANUFACTURING OF MANUAL METAL ARC WELDING (MMAW) ELECTRODES

## ALLOYS

<b>AWS</b>	304L Mod.	307Si	308L	309L	310	312	316L	347	410NiMo
<b>Wr. No. (EN)</b>	1.4307	1.4370	1.4316	1.4332	1.4842	1.4337	1.4430	1.4551	(13 4)
<b>AWS</b>	308L	309L	316L	430	2209	2594			
<b>Wr. No. (EN)</b>	1.4316	1.4332	1.4430	1.4016	(22 9 3 N L)	(25 9 4 N L)			

We also offer customized chemistry.

## STANDARD DIAMETERS

<b>MM</b>	1.60	2.00	2.40	3.20	4.00	5.00
<b>INCH</b>	0.062	0.080	0.093	0.125	0.157	0.1875

## STANDARD LENGTH

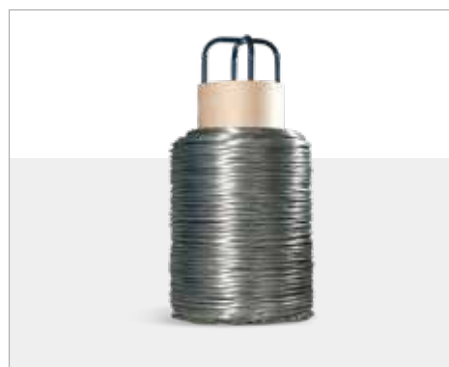
<b>MM</b>	250	300	350	400	450
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Customized diameter and length available on request.

## PACKAGING ON SPOOLS



**CUT LENGTHS**  
In wooden boxes of  
500 - 1000 kg/1000 - 2000 lbs



**COILS**  
300 - 1000 kg/650 - 2200  
lbs wound on tabular carrier



**COILS**  
100 - 200 kg/200 - 500  
lbs HDPE wrapped

# WIRE ROD



## ALLOYS

<b>AWS</b>	307Si	308H	308L	308LSi	309L	309LMo	309LSi	310	312	316L	316LSi	
<b>Wr. No. (EN)</b>	1.4370	1.4316	1.4316	1.4316	1.4332	1.4459	1.4332	1.4842	1.4337	1.4430	1.4430	
<b>AWS</b>	317	317L	318Si	347	347Si	385	410	410L	410NiMo	420	630	
<b>Wr. No. (EN)</b>	1.4449	1.4438	1.4576	1.4551	1.4551	(20 25 5 Cu L)	(13)	1.4003	(13 4)	1.4028	1.4542	
<b>AWS</b>	409Nb	409Ti	430	430LNb	430LNbTi	439	2209	2594	NiCr-3	NiCrMo-3		
<b>Wr. No. (EN)</b>	-	1.4512	1.4016	1.4511	1.4509	1.4510	(22 9 3 NL)	(25 9 4 NL)	2.4806	2.4831		
<b>AWS</b>	201	202	204CU	302	302HQ	303	304	304L	305	309	309S	
<b>AISI</b>	1.4372	1.4373	1.4597	1.4310	1.4567	1.4305	1.4301	1.4307	1.4303	1.4828	1.4332	
<b>AWS</b>	310	310S	314	316	316L	316Ti	317L	321	409	430F Mod.		
<b>AISI</b>	1.4841	1.4845	1.4841	1.4410	1.4404	1.4571	1.4438	1.4541	1.4512	1.4106		
<b>AWS</b>	420	420	420	430	430F	430F	431	434	446	630	2205	2304
<b>AISI</b>	1.4021	1.4028	1.4032	1.4016	1.4104	1.4105	1.4057	1.4113	1.4762	1.4542	1.4462	1.4362

We also offer customized chemistry.

## SUPPLY CONDITIONS






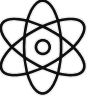





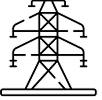



- Hot Rolled, Annealed, Peeled, Pickled (with or without coating)

## SIZE RANGE

- 5.5 mm - 26 mm (0.0217 - 1.000)
- Tolerance : +/- 0.20mm
- Ovality : 0.20 mm (maximum)
- Surface Defect : 1% of diameter (maximum)

# INDUSTRY SEGMENT

Stainless Steel Welding Wire are used in various industries for welding of similar - dissimilar base material.

 Automotive	 Railways	 Pressure Vessels
 Oil & Gas	 Chemical	 Nuclear
 Aerospace	 Paper	 Food
 Engineering Fabrication	 Ship Building	 Power
 Electronics	 Seawater Desalination	 Pharmaceuticals

# APPLICATIONS



# QUALITY

In addition to stringent process control techniques and test followed during production, Venus performs series of test on the final product to ensure compliance to customers product specification and expectation.

## MECHANICAL TESTING FACILITY

- **UTM Machines**

CHIMADZU (Japan) – Capacity = 10 MT

Star testing machine: Capacity = 0.5 MT, 2 MT, 5 MT

- **Brineel Hardness testing machine**
- **Bend testing machine wrap testing machine**

## HUMIDITY TESTING FACILITY

- **Humidity testing machine**

Temp. = 20° C to 70° C

RH = Up to 95%

- **Weld Testing Facility**

Wire Feedability Test

Welding performance test (Manuel / SPM / Robotic)

Ferrite measurement (with Ferritoscope)

## MAGNETIC PERMEABILITY TESTING WITH PERMEABILITY METER.



# Grade Chart

## STAINLESS STEEL ALLOY

VENUS	AISI	W.Nr. (EN)	SUS
VW 201	AISI-201	1.4372	SUS-201
VW 202	AISI-202	1.4373	SUS-202
VW 204Cu	AISI-204Cu	1.4597	SUS204Cu
VW 302	AISI-302	1.4310	SUS-302
VW 302HQ	AISI-302HQ	1.4567	S30430/302HQ
VW 303	AISI-303	1.4305	SUS-303
VW 304	AISI-304	1.4301	SUS-304
VW 304L	AISI-304L	1.4307	SUS-304
VW 305	AISI-305	-	SUS305
VW 309VSi		1.4828	
VW 309S	AISI-309S	-	SUS-309S
VW 310S	AISI-310/310S	1.4845	SUS-310S
VW 314	AISI-314	1.4841	-
VW 316	AISI-316	1.4401	SUS-316
VW 316L	AISI-316L	1.4404	SUS-316
VW 316Ti	AISI-316Ti	1.4571	SUS-316Ti
VW 317L	AISI-317/317L	1.4438	SUS-317
VW 321	AISI-321	1.4541	SUS-321
VW 409Ti	UNS S40910	1.4512	-
VW 409NiMOD	UNS S40975	1.4516	-
VW 409Nb	UNS S40945	-	-
VW 410L	AISI-410	1.4003	SUS-410
430F-Mod	-	1.4106	-
VW 420	AISI-420	1.4021	SUS-420
VW420C	-	1.4036	
VW 430	AISI-430	1.4016	SUS-430
VW 430F	AISI-430F	1.4105	SUS-430F
VW 431	AIS-431	1.4057	SUS-431
VW 434	AISI-434	1.4113	SUS-434
VW 2205	AISI-2205	1.4462	-
VW 2304	AISI-2304	1.4362	-
VW 630	AISI-630	1.4542	SUS-630
VW440C	AISI-440C	-	-
VW 446	AISI-446	-	-

Note:- single value indicate maximum

# Grade Chart

## STAINLESS STEEL WELDING ALLOYS

Venus	Nominal Composition	Alloy Type	Alloy Designation	Nominal Composition Designation	DIN Werkstoff Nr.
VW 307Si	18 8 Mn	-	-	18 8 Mn	1.4370
VW 308L	19 9 L	SS308L	ER308L	19 9 L	1.4316
VW 308 LSi	19 9 LSi	SS308LSi	ER308LSi	19 9 LSi	1.4316
VW 308H	19 9 H	SS308H	ER308H	19 9 H	-
VW 309L	23 12 L	SS309L	ER309L	23 12 L	1.4332
VW 309LSi	23 12 L Si	SS309LSi	ER309LSi	23 12 L Si	1.4332
VW 309LMO	23 12 2 L	-	-	23 12 2 L	(1.4459)
VW 310	25 20	SS310	ER310	25 20	(1.4842)
VW 312	29 9	SS312	ER312	29 9	1.4337
VW 316L	19 12 3 L	SS316L	ER316L	19 12 3 L	1.4430
VW 316 LSi	19 12 3 LSi	SS316LSi	ER316LSi	19 12 3 LSi	1.4430
VW 316H	19 12 3 H	SS316H	ER316H	19 12 3 H	-
VW 317 L	18 15 3 L	SS317L	ER317L	18 15 3 L	1.4438
VW 318 Si	19 12 3 Nb Si	-	-	19 12 3 Nb Si	1.4576
VW 347	19 9 Nb	SS347	ER347	19 9 Nb	1.4551
VW 347Si	19 9 Nb Si	SS347Si	ER347Si	19 9 Nb Si	1.4551
VW 385	20 25 5 Cu L	SS385	ER385	20 25 5 Cu L	-
VW 410	13	SS410	ER410	13	-
VW 420	-	SS420	ER420	-	1.4021
VW 410NiMo	13.4	SS410NiMo	ER410NiMo	13.4	-
VW 430LNbTi	18 LNbTi	-	-	18 LNbTi	1.4509
VW 420C	-	(SS420)	(ER420)	-	1.4028
VW 409CB	-	SS409Nb	ER409Nb	-	-
VW 2209	22 9 3 N L	SS2209	ER2209	22 9 3 N L	(1.4462)
VW 2594	25 9 4 N L	SS2594	ER2594	25 9 4 N L	-
VW 430LNB	18 LNB	(SS430LNB)	(ER430LNB)	18 LNB	1.4511



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