

Exports
Worldwide



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WELDING WIRES

Welding Consumables for
EXHAUST SYSTEM in
AUTOMOBILE ENGINEERING



BARS | WIRES | WELDING WIRES | HEX SQUARES



Introduction

The Journey of Venus Group

Branched out from its domestic trading division, in 1990, Venus started production of stainless steel bars & wires primarily focusing export market. Venus’ production facility & sales office are located in Khopoli, about 80 kms from Mumbai, the commercial capital of India.

Venus currently exports to more than 50 countries and have made a successful footprint globally with its impeccable quality and service. Our success is driven by our people and their commitment to get results the right way - by operating responsibly, executing with excellence, applying innovative technologies and capturing new opportunities for profitable growth.

Venus supplies materials for a large number of applications used in aerospace, agricultural, automotive, consumer, energy, food, industrial, medical, marine, oil & gas, paper, ship building etc. In addition to an effective Quality Management System (QMS) compliant to ISO and TS standards, Venus holds a number of customer and product approvals as a testimonial for its high quality products.

We ensure that the returns are effectively invested back for improving production facility and welfare of the people working with us. We strive for continual improvement in the quality of products, competitiveness and service level to customers.

About venus products

- Venus offers a variety of Stainless steel welding wires for almost all types of conventional welding processes, like MIG Welding, TIG Welding, Submerged Arc Welding (SAW) and Core wire for Stick electrodes.
- Our range of solid welding wires for the manufacturing of exhaust systems in the automotive industry have solutions to upcoming demands placed on the materials by International Emission Regulations which results in higher operating temperatures for catalytic converter and overall weight reduction.
- Our welding consumables are designed for Robotic welding, Semi Automatic Welding and Manual welding in Exhaust system manufacturing.

World Class **WIRES**
Manufacturing Facility

Approvals



Product Approvals & System Certifications

ISO 9001:2008
ISO 14001:2004
OHSAS 18001:2007
VdTUV 1153 (CE)
NPCIL, RDSO
TS 16949:2009



Corporate Social Responsibility

Employees are our greatest asset. We make them feel that they are an integral part of company’s mission

- **Healthy & Safe Working Environment • Training • Positive Work Atmosphere • Opportunity to Learn & Grow**

Environmental protection is one of the key factors in Venus' company policy. We exhibit it by our participation in various programs to reduce pollution and industrial waste.

- **Participation in Green Energy Programs • Effective Waste Management • Energy Management Programs**

Venus has always demonstrated its endless commitment towards the society in which it operates. Whether it is in the matter of business transparency or creating sustainable employments, Venus has always put its best efforts.

- **Improving Regulatory Compliance • Engagement in Fair & Responsible Trade.**



For GMAW (MIG) Process

Diameter						
mm	0.60	0.80	0.90	1.00	1.20	1.60
inch	0.025	0.030	0.035	0.040	0.045	0.062

Finish
 Bright, Matt & Semi Bright

Packaging



12.5 kg. / 25lb., 15kg. 30 lb./ 33 lb.
Layer wound Plastic spools/
Basket spool



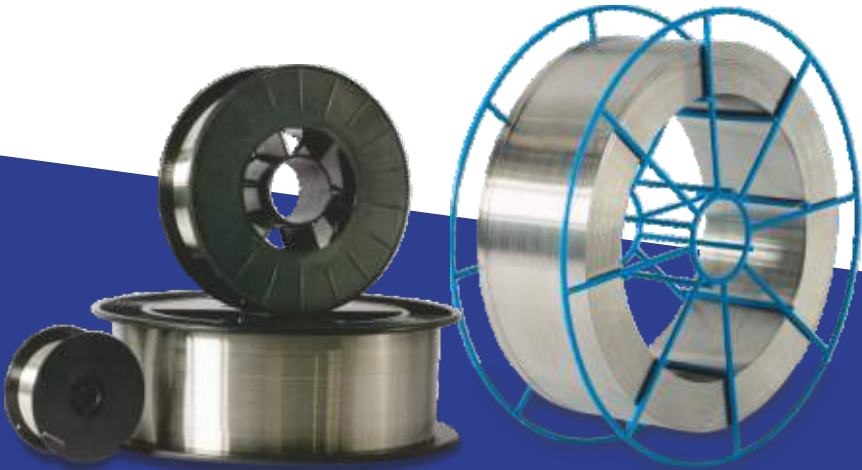
5 kg. / 10 lb. Layer wound
plastic spools / Basket spool



1 kg. / 2 lb. Layer wound
plastic spools

SIZE		STANDARD SPOOLS			
MM	INCH	Metallic Basket K 300	SD 300/BS300	SD 200/BS200	SD 100
0.60	0.025	10 kg./20 lb.	10 kg./20 lb.		
0.80	0.030				
0.90	0.035				
1.00	0.040	12.5 kg. / 25 lb.	12.5 kg./25 lb.	5 kg.	1 kg.
1.20	0.045	15 kg. / 30 lb./33 lb.	15 kg./30 lb./33 lb.	(10 lb.)	(2 lb.)
1.60	0.062				

We also offer "Customized Packaging & Labelling Solutions" as per requirements.



Pail Packing System for Automatic Welding

MIG Wires in Fiber Drums of 100-125 Kgs (200-250 lbs) / 200-225 Kgs (450 - 500 lbs) available for high productivity GMAW process and robotic applications.

Increase in productivity
 With less down time compared to standard spools

Less wear on welding machine parts
 No twist pay - off system

Clean conditions
 No contamination from the shop environment

Low space requirement
 The drum diameter is only 510 mm

Short set up time
 Adapt quick and easily to any conventional feeder



Grades

307Si, 308L, 308LSi, 309L,
 309LSi, 309LMo, 310, 312,
 316L, 316LSi, 317, 317L, 318Si,
 321, 347, 347Si, 409, 409Cb,
 409Ti, 410, 410NiMo, 420, 430,
 430LNb, 904L, 2209 2594,
 630, NiCr-3, NiCrMo-3

*also offered in equivalent DIN Standard

We also offer "Customized Packaging & Labelling Solutions" as per requirements.

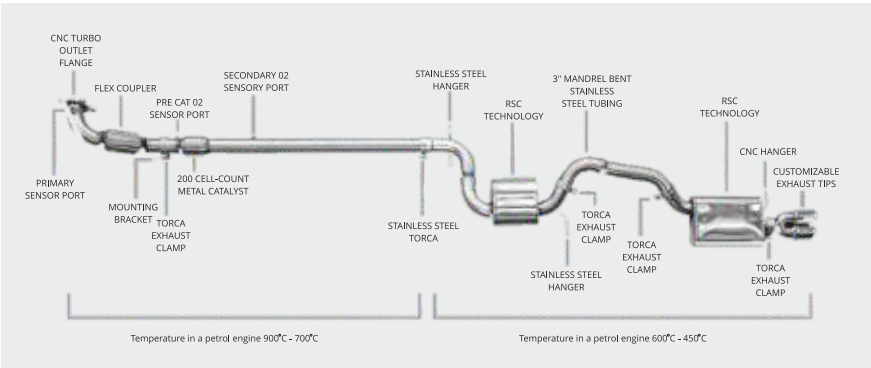


Selection

Selection of filler material as per requirement

- The selection of right combination of base metal and base metal is depends on the end application. It depends on which property is most important: Corrosion resistance or high temperature bearing, some materials are exposed to high temperature and corrosion, this combination restricts the selection of filler material
- The correct filler metal and welding process will be the key to improve productivity for manufacturing of Exhaust system.
- The basic key to selection of welding consumable is match the chemical and mechanical properties of base metal.

Product	EN Classification	AWS Classification	C	Si	Mn	Cr	Ni	Mo	Nb
Venus 430LNb	G 18 L Nb	ER 430 (Mod)	0.02	0.50	0.40	17.50	–	–	>10xC
Venus 307Si	G 18 8 Mn	ER 307 (Mod)	0.06	0.90	6.00	18.00	8.00	0.30	–
Venus 308 L	G 19 9 L Si	ER 308 L	0.02	0.50	1.50	19.50	9.5	0.30	–
Venus 308L Si	G 19 9 L Si	ER 308 L Si	0.02	0.80	1.50	19.50	9.50	0.40	–
Venus 309	G 22 12 H	ER 309	0.08	0.60	1.80	23.50	12.5	0.30	–
Venus 309L Si	G 23 12 L Si	ER 309 L Si	0.02	0.50	1.50	23.50	12.5	0.30	–
Venus 316L Si	G 19 12 3 L Si	ER 316 L Si	0.02	0.80	1.60	18.50	11.5	2.80	–
Venus 347L Si	G 19 9 Nb Si	ER 347 Si	0.05	1.00	1.50	19.50	9.50	0.30	>10xC



Exhaust System

Exhaust system base material and recommended filler material

Component	Ferritic base material	Recommended filler wire	Austenitic base material	Recommended filler wire
Manifold	1.4509/X2CrTiNb18/430 1.4511/X3CrNb17/430Nb	Venus 430LNb	1.4828/X15CrNiSi20-12/309	Venus 309
Down Pipe	1.4509/X2CrTiNb18/430 1.4512/XCrTi12/409	Venus 430LNb	1.4828/X15CrNiSi20-12/309	Venus 309
Catalytic Converter	1.4509/X2CrTiNb18/430 1.4511/X3CrNb17/430Nb	Venus 430LNb	1.4828/X15CrNiSi20-12/309	Venus 309 Venus 307Si
Inter-mediate pipe	1.4509/X2CrTiNb18/430 1.4512/XCrTi12/409	Venus 430LNb	1.4301/X5CrNi18-10/304	Venus 307Si Venus 347Si
Resonator/ Pre-silencer	1.4512/XCrTi12/409 1.4510/X3CrTi17/439	Venus 430LNb Venus 307Si Venus 308LSi	1.4301/X5CrNi18-10/304 1.4541/X6CrNiTi18-10/347	Venus 307Si Venus 347Si
Connection pipe	1.4512/XCrTi12/409	Venus 430LNb Venus 307Si Venus 308LSi	1.4301/X5CrNi18-10/304	Venus 308LSi Venus 307Si
Muffler	1.4512/XCrTi12/409	Venus 430LNb Venus 307Si Venus 308LSi	1.4301/X5CrNi18-10/304 1.4541/X6CrNiTi18-10/347	Venus 308LSi/347Si Venus 347Si/307Si
Tail pipe	1.4512/XCrTi12/409 1.4509/X2CrTiNb18/430	Venus 430LNb Venus 307Si Venus 308LSi	1.4301/X5CrNi18-10/304 1.4401/XCrNiMo17-12-2/316	Venus 308LSi/307Si Venus 316LSi

Stainless Steel for Welding Application										Stainless Steel for Welding Application							
Grades	AWS Classification	EN ISO 14343	Chemical Composition (%)							Chemical Composition (%)					Approval		
			C	Si	Mn	P	S	Ni		Cr	Mo	Cu	N	Others	TUV	DB	CWB
Martensitic	ER410	13	≤ 0.12	≤ 0.50	≤ 0.60	≤ 0.03	≤ 0.02	≤ 0.50		12.00/15.00	≤ 0.50	≤ 0.50	---	---	---	---	---
	ER420	--	0.25/0.40	≤ 0.50	≤ 0.60	≤ 0.03	≤ 0.03	≤ 0.60		12.00/14.00	≤ 0.75	≤ 0.75	---	---	---	---	---
	410NiMo	13 4	≤ 0.05	≤ 0.50	≤ 0.60	≤ 0.03	≤ 0.02	4.00/5.00		11.00/12.50	0.40/0.70	≤ 0.50	---	---	---	---	---
Ferritic	ER430	17	≤ 0.10	≤ 0.50	≤ 0.60	≤ 0.03	≤ 0.03	≤ 0.50		15.50/17.00	≤ 0.5	≤ 0.50	---	---	---	---	---
	--	430LNb (18LNb)	≤ 0.03	≤ 0.50	≤ 0.60	≤ 0.03	≤ 0.03	≤ 0.60		15.50/17.00	≤ 0.75	≤ 0.75	--	Nb 8xC/1.20	--	--	--
Austenitic	ER308L	19 9 L	≤ 0.03	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.02	9.00/11.00		19.50/22.00	≤ 0.50	≤ 0.50	--	--	Tig	--	Mig & Tig
	ER308LSi	19 9 Lsi	≤ 0.03	0.65/1.00	1.00/2.50	≤ 0.03	≤ 0.02	9.00/11.00		19.50/22.00	≤ 0.50	≤ 0.50	--	--	Mig & Tig	Mig & Tig	Mig
	ER309L	23 12 L	≤ 0.03	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.02	12.00/14.00		23.00/25.00	≤ 0.50	≤ 0.50	--	--	Tig	--	Mig & Tig
	ER309LSi	23 12 L Si	≤ 0.03	0.65/1.00	1.00/2.50	≤ 0.03	≤ 0.02	12.00/14.00		23.00/25.00	≤ 0.50	≤ 0.50	--	--	Mig & Tig	--	Mig
	--	(309LMo) 23 12 2 L	≤ 0.03	≤ 1.00	1.00/2.50	≤ 0.03	≤ 0.02	21.00/25.00		11.00/15.50	2.00/3.50	≤ 0.50	--	--	--	--	--
	ER316L	19 12 3 L	≤ 0.03	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.02	11.00/14.00		18.00/20.00	2.00/3.00	≤ 0.50	--	--	Tig	--	Mig & Tig
	ER316LSi	19 12 3 L Si	≤ 0.03	0.65/1.00	1.00/2.50	≤ 0.03	≤ 0.02	11.00/14.00		18.00/20.00	2.00/3.00	≤ 0.50	--	--	Mig & Tig	Mig & Tig	Mig
	ER310	25 20	0.08/0.15	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.03	20.00/25.50		25.00/28.00	≤ 0.75	≤ 0.75	--	--	--	--	--
	ER312	29 9	≤ 0.15	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.02	8.00/10.50		28.00/32.00	≤ 0.50	≤ 0.50	--	--	--	--	--
	ER317	--	≤ 0.08	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.03	13.00/15.00		18.50/20.50	3.00/4.00	≤ 0.75	--	--	--	--	--
	ER317L	18 15 3 L	≤ 0.03	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.03	13.00/15.00		18.50/20.50	3.00/4.00	≤ 0.75	--	--	--	--	--
	ER347Si	19 9 Nb Si	≤ 0.08	0.65/1.00	1.00/2.50	≤ 0.03	≤ 0.02	9.00/11.00		19.00/21.00	≤ 0.50	≤ 0.50	--	Nb 10XC/1.00	Mig	--	--
	ER347	19 9 Nb	≤ 0.08	0.30/0.65	1.00/2.50	≤ 0.03	≤ 0.02	9.00/11.00		19.00/21.00	≤ 0.50	≤ 0.50	--	Nb 10XC/1.00	Tig	--	--
	--	(307Si) 18 8 Mn	≤ 0.20	1.20	5.50/8.00	≤ 0.03	≤ 0.03	7.00/10.00		17.00/20.00	≤ 0.50	≤ 0.50	--	--	Mig & Tig	Mig	--
	--	(318Si) 19 12 3 Nb Si	≤ 0.08	0.65/1.20	1.00/2.50	≤ 0.03	≤ 0.02	11.0/14.00		18.00/20.00	2.50/3.00	≤ 0.50	--	Nb 10XC/1.00	Mig & Tig	Mig & Tig	--
	ER385	20 25 5 Cu L	≤ 0.025	≤ 0.50	1.00/2.50	≤ 0.02	≤ 0.02	24.00/26.00		19.50/21.50	4.20/5.20	1.20/2.00	--	--	--	--	--
Duplex / Super duplex	ER2209	22 9 3 NL	≤ 0.03	≤ 0.900	0.50/2.00	≤ 0.03	≤ 0.02	7.50/9.50		21.50/23.50	2.50/3.50	≤ 0.50	0.10/0.20	--	Mig & Tig	--	--
	ER2594	25 9 4 NL	≤ 0.03	≤ 1.00	≤ 2.50	≤ 0.03	≤ 0.02	8.00/10.50		24.00/27.00	2.50/4.50	≤ 1.50	0.20/0.30	W ≤ 1.00	--	--	--
Nickel Alloys	ERNiCrMo-3	--	≤ 1.0	≤ 0.50	≤ 0.50	≤ 0.02	≤ 0.015	≥ 58.00		20.00/23.00	8.00/10.00	≤ 0.50	--	Fe 5.0max, Al 0.40max, Ti 0.40max, Nb+Ta 3.15/4.15, Others 0.50max	--	--	--
	ERNiCr-3	--	≤ 0.10	≤ 0.50	2.50/3.50	≤ 0.03	≤ 0.015	≥ 67.00		18.00/22.00	--	≤ 0.50	--	Fe 3.0max, Ti 0.75max, Nb+Ta 2.0/3.0, Others 0.50max	--	--	--
	VENUS		C	Si	Mn	P	S	Ni		Cr	Mo	Cu	N	Others	--	--	--
Special Alloy	For Electrodes	308L	≤ 0.02	≤ 0.20	≤ 2.00	≤ 0.02	≤ 0.015	9.50/10.50		19.50/20.50	≤ 0.20	≤ 0.20	≤ 0.08	--	--	--	--
	For Automotive Exhaust	430LNbW	≤ 0.03	0.30/0.60	0.30/0.60	≤ 0.03	≤ 0.03	0.20/0.60		16.50/19.50	0.20/0.50	0.30/0.70	--	Nb 0.30/0.70	--	--	--
Precipitation Hardenable	ER-630	---	≤ 0.05	≤ 0.75	0.25/0.75	≤ 0.03	≤ 0.03	4.5/5.0		16/16.75	≤ 0.75	3.25/4.0	---	Nb 0.15/0.30	---	---	---

We are COMMITTED to
THINKING AHEAD & STAYING AHEAD
in ways that matter most to OUR CLIENTS.

