EXPERTS IN OIL & GAS

voestalpine Specialty Metals voestalpine.com/specialtymetals



111

111

121

voestalpine WORLDWIDE

voestalpine AG Group is a leading global technology and capital goods group with a unique combination of material and processing expertise. The Group focuses on high integrity nickel based alloys, stainless steels and other metals of the highest quality, in technologyintensive industries with a combined turnover in excess of EUR 12 billion. Headquartered in Linz Austria, voestalpine employs around 50,000 people world-wide, and is represented by 500 Group companies located in more than 50 countries on 5 continents.



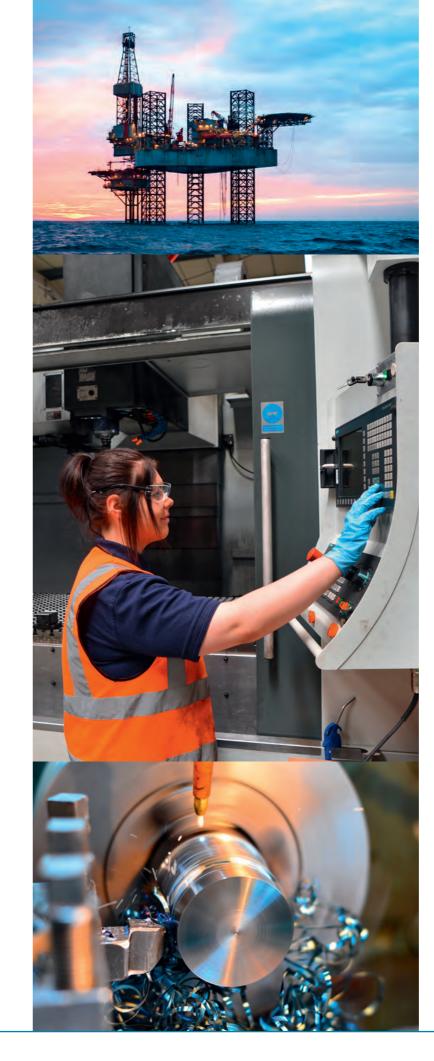
voestalpine Specialty Metals	4
Product Portfolio	6
Value Added Services	8
Additive Manufacturing and	10
3D Printing	
Environmental	11

ABOUT US

voestalpine Specialty Metals is a leading player in the Oil & Gas market. We are a global company specializing in High Performance Metals, including nickel-based & special steel alloys. We deliver innovative materials and customer specific solutions to the Oil & Gas industry, and we are committed to maintaining our global presence. We have access to high quality products through our own mills, and our group of specialized companies allows us to provide customers with technical expertise and support. We offer advanced supply chain solutions, customer specific inventory management, and consignment stocking to ensure our customers can work as efficiently as possible. We are where our customers are. With locations in Houston, Singapore, the North Sea (UK, Scotland and Norway), Brazil and the Middle East, voestalpine Specialty Metals has full coverage in all relevant Oil & Gas centers. Our global distribution network with more than 150 sites and 90 storage facilities worldwide serves not only the Oil & Gas industry, but also other industries such as power generation, aerospace, and tooling. Our specialized presence ensures that we meet our customers' demands.

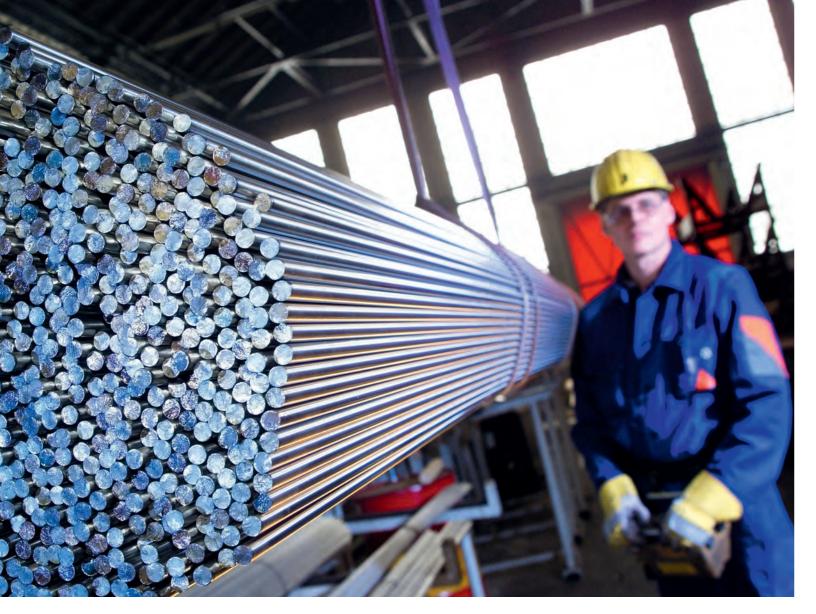


North America UK Norway Middle East Asia Pacific



OIL & GAS INDUSTRY

Processes in the Oil & Gas industry present operators with enormous challenges in technical safety. This makes it even more critical to exclusively use top-quality materials. As a globally recognized materials partner, we develop extremely corrosion-resistant steels, from super-duplex materials to nickel alloys.



	Markot Grade		Mill Grade	Bar	Billet	Wire	Sheet	Plate	Forgings
	Market Grade	Market Grade UNS Mill G						₽.	Ľ
Nickel Alloys	Alloy 59	N06059	L359		•				
	Alloy 400	N04400	Monel 400	•					
	Alloy K500	N05500	Monel K500	•					
	Alloy 625	N06625	L331/L625	•	•	•	•	•	•
	Alloy 718 AMS	N07718	L718	•	•	•	•	•	•
	Alloy 718 API	N07718	L718API	•	•	•	•	•	•
	Alloy 725	N07725	L725	•	•	•			•
	Alloy 825	N08825	L314	•	•	•	•	•	•
	Alloy 90	N07090	L090	•	•	•			
	Alloy 901	N09901	L901	•	•	•			•
	Alloy 925	N09925	L925	•	•	•			•
	Alloy C22	N06022	L022	•	•	•			
	Alloy C276	N10276	L276	•	•	•			
	Alloy C4	N06455	L004	•	•	•			
	Alloy G3	N06985	L003		•				
	Alloy X750	N07750	L750		•				
	Waspaloy	N07001	L303	•	•	•			
Ferritic, Martensitic &	F6NM	S41500	N400	•	•	•			•
PH Steels	DIN 1.4418	SS2387	N404		•	-			•
	17-4 PH	S17400	N700	•	•	•			
	15-5 PH	S15500	N701	•	•	•			
	13CR (420M)	S42000		•	-	-			
	Super 13CR	S41427		•					
Duplex & Super	F51 Duplex	S31803	A903	•			•		•
Duplex Steels	F53 Super Duplex	S32750	A913		•	-		-	•
	F55 Super Duplex	S32760	A911SA	•	•	•	•	•	•
Austenitic Steels	74/ 174/1	674/00/674/07	4.000						
	316/316L	S31600/S31603	A200	•					
	F44 6Mo	S31254	A965SA	•	•	•			•
	A286 Nitronic 50	S66286	T200	•	•	•			
		S20910	P511	•	•	•			
	Nitronic 60	S21800	P513	•	•	•			
Engineering Steels	F22	K21590		•	•				•
	4130	G41300		•	•				•
	4140	G41400		•	•				•
	4145	G41450		•	•				•
	4330V Mod.	K23080		•	•				•
	8630 Mod.	G86300		•	•				•
	9CR/1MO	K90941		•					•

Please note: This list is not conclusive, if you do not see a material grade you require please contact us.

PRODUCT PORTFOLIO

We are a global supplier of a broad range of turnkey solutions and highly engineered materials and services.

Our range of products and services can be found throughout the upstream and downstream sectors in addition to the chemical processing and fasteners industries. In addition to our existing materials, the close relationship with our own mills enables us to develop targeted solutions for specific applications.

VALUE ADDED SERVICES

Value Added Services give our customers access to cutting, machining, deep hole boring, drilling, turning, milling, testing and other services providing turnkey customer solutions. This includes an onsite testing service, used when customers require additional certification to that supplied by the mill.

Our broad range of capabilities allows us to handle the standard jobs such as cutting through to custom machining services to your individual specifications, with options to include heat treatment, surface coatings and additional testing.

Whatever your requirement, our aim is to be your preferred partner in the areas that matter to you.

VALUE ADDED SERVICES

Stocking
Cutting
Heat treatment
Mechanical testing / NDT
Milling & turning
Deep hole boring / drilling
Finish machining
Threading
Forged components
Additive manufacturing
Repair and hard facina



STOCKHOLDING, **DISTRIBUTION AND** CUTTING SERVICE

Whether it is material coming from one of our many stocking locations or directly from our mill; our goal is to service our customers with the best response time possible, on-time delivery and with quality.

Extensive stocks are held within our global warehouses, which are equipped with semi-automatic and automatic sawing machines. Additionally, we offer CNC water jet cutting system. With our fast track service and comprehensive cutting machines and grinding facilities, you can rest assured that the service provided by our companies, will be second-to-none.

Full batch traceability is guaranteed, and hard stamping, etching and labeling facilities are all available.

MACHINING SERVICES

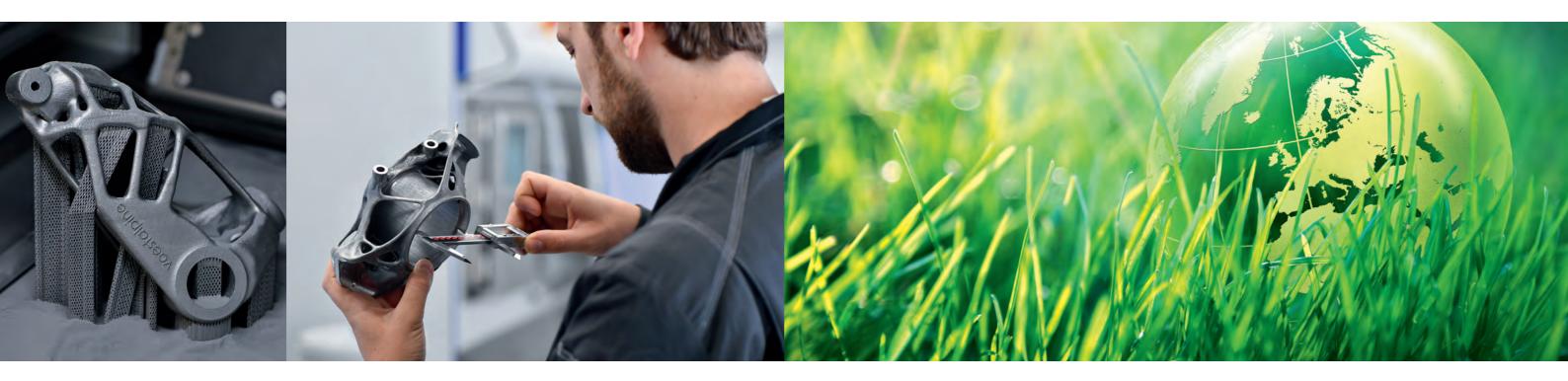
Machining of highly alloyed steel and nickel alloys requires metallurgical expertise and specialist equipment. We offer extensive services and machining capabilities to supply net shape high performance metals. Services offered include deep hole drilling, precision turning, honing and milling according to our customers' requirements. Machining is available for all grades of materials.

INSPECTION AND TESTING SERVICES

We instill trust by being certified in the fields our global customers demand, ensuring the quality asked for is delivered. The close relationship with our in-house mills and machining facilities allows consistent quality along the entire supply chain.

ADDITIVE MANUFACTURING AND 3D PRINTING

ENVIRONMENTAL



Additive manufacturing, popularly known as 3D printing, is one of the most innovative and revolutionary manufacturing methods we see today.

At voestalpine, we are laying the foundation for innovation in additive manufacturing by developing new metal powders that can be adapted to specific applications. Equipped with the knowledge of our material experts, we are a frontrunner in this revolutionary technology.

So far, there have been limited powder materials to choose from when it comes to printing metal parts as they have mostly been developed to be easy to print, rather than to a specification needed for more demanding applications. We see the opportunity this new technology brings and the possibilities for optimizing the materials, as such we are developing alloys with focus on the application to bring maximum added value to the user while still being able to be printed.

Complete solutions from a single source

An essential part of the success of our additive manufacturing operations is a comprehensive understanding of each and every process in the value chain. We provide additive manufacturing solutions from start to finish, from the development & production of the powder and design of the parts, to the actual manufacturing process, machining, heat treatment and coating of the finished component.

Additive advantages

- Increased geometric freedom
- Increased part functionality
- Weight reduction of parts
- No tooling costs
- Economical low volume production
- Production on demand
- Reduced lead times
- Reduced raw material consumption
- Thermal and flow optimization

For decades sustainable production processes, the responsible management of resources, and using the best possible technologies have been integral to our company philosophy and our activities. At the same time, this philosophy forms the basis for our claim to long-term quality leadership in products and services.

Steel is nearly 100% recyclable and today is used virtually everywhere. It makes our lives more comfortable, more environmentally friendly, more mobile and safer. We carefully scrutinize every detail to optimize the use of precious resources during the production of steel, drawing on our power of innovation to provide better environmental solutions. We actively take responsibility for our actions and work with passion on our green future.

As well as striving to maintain an ecologically clean environment we are also one of the steel industry's leaders when it comes to quality. We are proud of our technical capabilities throughout the group at every level of our business. The capabilities of our production plants and those of our partners are well known and respected throughout many different industries and we are constantly innovating and improving to stay ahead.

voestalpine Specialty Metals North America

11929 Cutten Road Houston, Texas 77066, USA T: +1 800 704 6866 F: +1 281 444 0021 E: vsmsales@voestalpine.com

voestalpine Specialty Metals UK

Head Office & Central Distribution Centre

European Business Park, Taylors Lane, Oldbury West Midlands, B69 2BN T: +44 (0) 121 543 2355 E: ukspecialtymetals@voestalpine.com

Scotland Office & Distribution Centre

Mitchelston Industrial Estate, Kirkcaldy Fife, Scotland, KY1 3NJ T: +44 (0) 1592 650995 E: scotspecialtymetals@voestalpine.com

voestalpine Specialty Metals Norway

Jernkroken 18 0976 Oslo T: +47 9113 9615 F: +47 2291 8001 E: oilandgas@voestalpine.com

voestalpine Specialty Metals Middle East

Jebel Ali Free Zone (South Zone 3) P.O. Box 262840, Dubai, United Arab Emirates T: +971 4 8870 704 ext. 220 E: tom.ferguson@voestalpine.com

voestalpine Specialty Metals Asia Pacific

25 Pioneer Crescent Singapore 628554 T: +65 6303 73 93 F: +65 6898 1104 E: sales@voestalpine.com



