

HÖVER Aeralloy special materials and special steels for steam and gas turbine construction and in compressor technology. The requirement for peak efficiencies and improvement in service life means top-grade solutions. Rising inlet temperatures demand materials with excellent creep resistance which are immune to high-temperature corrosion. We assist you in the selection of first-class HÖVER Aeralloy materials of the new generation, from ultrapure refined heats, precisely formed and heat treated, enabling you to derive the utmost from process potentials.

We manufacture to

- Drawings (premachined and final machined condition)
- Supply regulations
- Codes and standards

as

- Open-die forgings
- Seamless forged and rolled rings

- Forged discs
- Shaped, upset shafts or bars

from

- Highly refined heats of special steels
- Stainless steels
- Titanium and titanium alloys
- Cobalt alloys
- Zirconium

e.g.

- with special heat treatment
- Fully tested and certified.

Höverstahl – Turbines, Compressors and Jet Engines

Nickel and cobalt materials



Material	No.	Alloy type	Standard designation*	Application
Aerloy 41 Precipitation hardenable high-temperature and corrosion resistant nickel-based alloy	(2.4973)	NiCr 19 CoMo	Rene 41	Gas turbines
Aerloy 75 High-temperature and corrosion resistant nickel-based alloy	2.4630 (2.4951)	NiCr 20 Ti	Nimonic 75	Industrial furnaces, gas turbines, nuclear industry
Aerloy 80 A Precipitation hardenable high-temperature and corrosion resistant nickel-based alloy	2.4631 (2.4952)	NiCr 20 TiAl	Nimonic 80 A	Gas turbines
Aerloy 81 Modification of Aerloy 80A with increased chromium content	—	NiCr 30 TiAl	Nimonic 81	Gas turbines
Aerloy 90 Precipitation hardenable high-temperature and corrosion resistant nickel-based alloy	2.4632 (2.4969)	NiCr 20 Co 18 TiAl	Nimonic 90	Gas turbines, high-temperature springs
Aerloy 91 Modification of Aerloy 90 with increased chromium content	—	NiCr 29 Co 20 TiAl	Nimonic 91	Gas turbines
Aerloy 101 Modification of Aerloy 105 with increased chromium content	—	NiCr 25 Co 20 TiMo	Nimonic 101	Gas turbines, (burner zone)
Aerloy 105 Precipitation hardenable high-temperature alloy on Ni-Co-Cr basis	2.4634	NiCo 20 Cr 15 MoAlTi	Nimonic 105	Gas turbines, springs
Aerloy 188 Heat resistant cobalt-based alloy	- (2.4683)	CoCr 20 NiW	HS 188	Gas turbines
Aerloy C-263 Precipitation hardenable high-temperature alloy on Ni-Co-Cr basis	2.4650	NiCo 20 Cr 20 MoTi	Nimonic C-263	Gas turbines, high-temperature furnaces
Aerloy A-286 Precipitation hardenable high-performance special steel, high temperature and corrosion resistant	1.4944 1.4943 (1.4980)	X 5 NiCrTi 26.15 X 4 NiCrTi 25.15	A-286	Gas turbines
Aerloy 500 Austenitic Ni-Cr-Co alloy, precipitation hardenable	2.4983	NiCr 18 Co	Udimet 500	Turbine blades and rings
Aerloy 520 Precipitation hardenable Ni-Cr-Co alloy, high-temperature and corrosion resistant	—	NiCr 19 Co 12 MoTiAlW	Udimet 520	Gas turbines, stationary
Aerloy L-605 Heat resistant cobalt-based alloy	2.4964 (2.4967)	CoCr 20 W 15 Ni	L-605 Haynes 25 Stellite No. 25	Gas turbines
Aerloy 617 Heat resistant nickel-based alloy with very good mechanical properties at high temperatures	2.4663	NiCr 23 Co 12 Mo	Inconel 617	Gas turbines, nuclear industry, air heaters
Coralloy 625	2.4856	NiCr 22 Mo 9 Nb	Inconel 625	Aerospace, chem. process engineering, offshore rigs, nuclear industrie
Aerloy 718 Aerloy 718 Fine Grain Precipitation hardenable high-temperature and corrosion resistant nickel-based alloy	2.4668	NiCr 19 NbMo	Inconel 718	Gas turbines, pumps, nuclear industry, offshore
Aerloy 720 Precipitation hardenable Ni-Cr-Co alloy, high-temperature and corrosion resistant	—	NiCr 18 Co 15 MoWTiAl	Udimet 720	Gas turbines, stationary
Aerloy Waspaloy Aerloy Waspaloy Fine Grain Precipitation hardenable high-temperature nickel-based alloy, oxidation resistant up to approx. 815°C	2.4654	NiCr 19 Co 14 Mo 4 Ti	Waspaloy	Turbine discs, compressor discs
Aerloy X	2.4665	NiCr 22 Fe 18 Mo	Hastelloy X	Gas turbines, petrochemistry, nuclear industry

Nickel and cobalt materials



Material	No.	Alloy type	Standard designation*	Application
Aerloy X-750 Precipitation hardenable nickel-chrome alloy, corrosion and oxidation resistant with high creep fracture resistance up to 815°C	2.4669	NiCr 15 Fe 7 TiAl	Inconel X-750	Gas turbines, nuclear, disc springs, vacuum shrouds
Aerloy 751 Modification of the X-750 variant	2.4694	NiCr 16 Fe 7 TiAl	Alloy 751	Gas turbines, petrochemistry
Aerloy 901 Precipitation hardenable high-temperature and corrosion resistant iron-nickel alloy	2.4662	NiCr 13 Mo 6 Ti 3	Nimonic 901	Gas turbine construction
Coralloy 601 Mixed crystal alloy with excellent high temperature qualities.	2.4851	NiCr 23 Fe	Inconel 601	Industrial furnaces, petrochemistry, off-gas detoxifying
Coralloy 800/H/HT Corrosion- and heat-resistant nickel-chromium-alloyed special steel	1.4876 1.4958 1.4959	X 10 NiCrAlTi 32.20 X 5 NiCrAlTi 31.20 X 8 NiCrAlTi 32.21	Incoloy 800 Incoloy 800 H Incoloy 800 HT	Industrial furnaces and steam boiler construction, chemical and petrochemical industry, nuclear industry
Coralloy 825 Nickel alloy with chrome, copper and molybdenum	2.4858	NiCr 21 Mo	Incoloy 825	Chem. apparatus, pumps, heat exchangers, nuclear industry

Special Steels



Material	No.	Alloy type	Trade designation*	Application
Special materials and steels for specialised technologies				
Aerloy 440	1.3544	X 102 CrMo 17	AISI-440-C	
Aerloy 431-C	1.4044	X 16 CrNi 17.2	AISI-431-C	
Aerloy PH 13-8 Mo	1.4534	X 3 CrNiMoAl 13.8.2	PH 13-8 Mo	
Aerloy 321	1.4544	X 7 CrNiTi 18.9	AISI-321	
Aerloy 15-5 PH	1.4545	X 5 CrNiCuNb15.5.4	15-5 PH	
Aerloy 347	1.4546	X 5 CrNiNb 18.10	AISI-347	
Coracid 13-4 VR Coracid 13-4 VR mod. Coracid 16-5 VR	1.4313 1.4320 1.4418	X 4 CrNi 13.4 X 2 CrNiMo 13.4 X 5 CrNiMo 16.5.1	– – –	Soft martensitic heat treatable steels, corrosion-resistant, good mechanical properties. The steel X 2 CrNiMo 13.4 (material no. 1.4320) is alloyed for use in sour gas in accordance with NACE-MR 0175. We also offer you on request F 6 NM Type (UNS S 41500).
Coracid 17-4 VR	1.4548	X 5 CrNiCuNb 17.4.4	17-4 PH	Soft martensitic precipitation hardening special steel, corrosion-resistant, high-strength.
Aerloy 17-7 PH	1.4564	X 7 CrNiAl 17.7	17-7 PH	
Aerloy 15-7 Mo PH	1.4574	X 7 CrNiMoAl 15.7	15-7 Mo PH	
Aerloy AM-355	–	(15Cr-4Ni-3Mo)	AM 355	
Aerloy C-455	–	(12Cr-9Ni-2Cu)	Custom 455	
Aerloy Greek Ascoloy	–	(13Cr-3W-2Ni)	Greek Ascoloy (AISI 418)	
Aerloy 4934	1.4934	X 20 CrMoWV 12.1	–	
Aerloy M152	1.4939	X 12 CrNiMo 12	Jethete M 152	
Aerloy A 286	1.4943	X 4 NiCrTi 25.15	A 286	
	1.4944	X 5 NiCrTi 26.15	A 286	
Aerloy V 57	-	X 8 NiCrTi 27.15	V 57	
Aerloy N155	1.4974	X 12 CrCoNi 21.20	N 155	
Aerloy MAR-300	1.6354	X 2 NiCoMo 18.9.5	Maraging 300	
	1.6358	X 2 NiCoMo 18.9.5	–	
Aerloy MAR-350	1.6356	X 2 NiCoMoTi 18.12.4	Maraging 350	
Aerloy MAR-250	1.6359	X 2 NiCoMo 18.8.5	Maraging 250	
Aerloy 6604	1.6604	30 CrNiMo 8	–	
Aerloy 6944	1.6944	38 NiCrMoV 7.3	–	
Aerloy S 5000	–	~ 40NiCrMo 6	SAE 4340	

Special Steels



Material	No.	Alloy type	Trade designation*	Application
Aer Alloy 300 M (4340 mod.)	~ 1.6928	~ 41SiNiCrMoV 7.6	300 M	
Aer Alloy HY-TUF	—	(.27C-1.5Si-1.5Mn-.4Cr-.45Mo-- 1.9Ni-.1V-.1Cu)	HY-TUF	
Aer Alloy D 6 AC	—	~48 CrMoNiV 4.10	D 6 AC	
Aer Alloy HP-9-4-20	—	(9Ni-4.5Co-1Mo)	HP-9-4-20	
Aer Alloy HP-9-4-30	1.6974	(7.5Ni-4.5Cu-1Mo)	HP-9-4-30	
Aer Alloy 7734	1.7734	14 CrMoV 6.9	15 CDV 6	
Aer Alloy 7736	1.7736	ESU-14 CrMoV 6.9	—	
Aer Alloy H 11	1.7784	X 41 CrMoV 5.1	H 11	
Coralloy K-500	2.4375	NiCu 30 Al	Alloy K-500	
Aer Alloy Ti 6.4 VR	3.7164 3.7165	TiAl 6 V 4	Titan Grade V	Most popular titanium material (alloyed). Used in the chemical industry, motor racing, aircraft construction, aerospace, in turbines (compressors) and jet engines (compressors).

Non-magnetising steels

Coralloy PERM 3914	1.3914	X 2 CrNiMnMoNnb 21.15.7.3	—	
Coralloy PERM 3952	1.3952	X 2 CrNiMoN 18.14.3	—	
Coralloy PERM 3964	1.3964	X 2 CrNiMnMoNnb 21.16.5.3	—	
Coralloy PERM 3974	1.3974	X 2 CrNiMnMoNnb 23.17.6.3	—	

Special steels with defined coefficients of thermal expansion

for ultra-high precision components in aerospace, research, instrumentation, lasers

Coralloy ALPHA 36	1.3912	Ni 36	INVAR 36	
Coralloy ALPHA 42	1.3917	Ni 42	INVAR 42	

High-temperature steels



Material	No.	Alloy type	Trade designation*	Application
Coracid 9.1	1.4903	X 10 CrMoVnb 9.1	F 9.1 (P 9.1)	Bolts, nuts, valves and other components in turbine and boiler construction, turbine blades, chemical industry, reactor construction.
Coracid 4919	1.4919	X 6 CrNiMo 17.13		
Coracid 4921	1.4921	X 19 CrMo 12.1		
Coracid 4922	1.4922	X 20 CrMoV 12.1		
Coracid 4923	1.4923	X 22 CrMoV 12.1		
Coracid 4926	1.4926	X 21 CrMoV 12.1		
Coracid 4948	1.4948	X 6 CrNi 18.11		
Coracid 4961	1.4961	X 8 CrNiNb 16.13		
Coracid 4962	1.4962	X 12 CrNiWTi 16.13		
Coralloy A 286	1.4980	X 5 NiCrTi 26.15	A286	
Coracid 4981	1.4981	X 8 CrNiMoNb 16.16		
Coracid 4985	1.4985	X 4 NiCrMoTi 26.15		

We can offer you further materials and variants on request.

*) Standard trade designations of: General Electric, Cabot, Haynes, Special Metals, Teledyne, Inco Group, VDM Nickel Technology, Republic Steel, IMI, United Technologies, Carpenter