VDM Metals

Contract manufacturing

Finishing lines
Altena and Unna

Content

Contract manufacturing at VDM Metals

VDM Metals is one of the leading manufacturers of corrosion and heat-resistant nickel and cobalt alloys as well as high alloyed special stainless steels.

In addition to our semi-finished products, we offer contract manufacturing in nearly all areas of our production operations – melting and remelting, hot and cold rolling and a wide range of plant services involving finishing work.

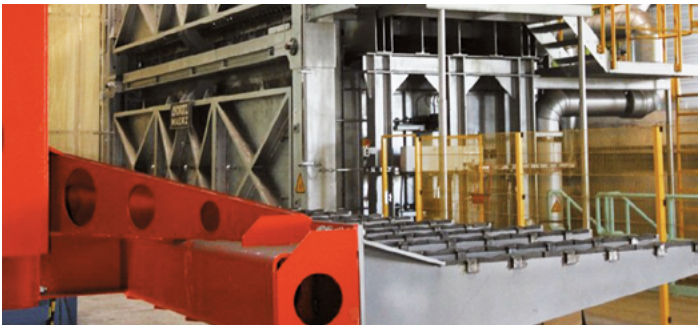
In the field of contract manufacturing, we welcome inquiries about materials outside our own semi-finished product lines, e.g. stainless steels, copper materials or other metal products.

In addition to the systems listed, numerous other pieces of auxiliary equipment are available. Besides, we can offer you a variety of laboratory services, such as in the areas of corrosion tests, mechanics or physics.

Heat treatment equipment Altena

		Furnace 1 Bogie hearth	Furnace 2 Chamber furnace	Furnace 3 Bogie hearth	Furnace 4 Bogie hearth
Year of construction		1981 (Re-build 1997)	2014	2006	2007
Min./max. infeed height	[mm]	to 500	to 600	to 500	to 500
Min./max. infeed width	[mm]	to 1.000	to 2.000	to 1.200	to 1.220
Min./max. infeed diameter	[mm]	to 500	to 200	to 500	to 500
Min./max. infeed length	[mm]	1.600/7.000	800/13.000	1.600/8.500	1.600/6.000
Approvals		AMS-2750, NADCAP	AMS-2750, NADCAP	AMS-2750, NADCAP	AMS-2750, NADCAP
Furnace class (raw material)	(Class)	3	3	3	3
Max. temperature uniformity	[°C]	+/- 8	+/- 8	+/- 8	+/- 8
Length of the workspace	[mm]	7.000	13.000	8.500	6.000
Width of the workspace	[mm]	1.000	2.000	1.200	1.250
Height of the workspace	[mm]	500	600	500	500
Max. weight per meter in the workspace	[kg/m]	1.143	385	2.120	2.120
Max. load	[kg]	8.000	5.000	18.000	12.720
Min./max. annealing temperature	[°C]	500/1.220	470/1.250	500/1.240	500/1.240

Heat treatment equipment Unna



		Furnace 1 Chamber furnace	Furnace 2 Chamber furnace
Year of construction		2013	2013
Max. unit weight	[kg]	15.000	15.000
Min./max. infeed length	[mm]	7.500	7.500
Min./max. outfeed length	[mm]	7.500	7.500
Approvals		AMS-2750, NADCAP	AMS-2750, NADCAP
Furnace class (raw material)	(Class)	3 and 5	3 and 5
Heating	(Type)	Natural gas	Natural gas
Number of control zones	[Number]	5	5
Length of the workspace	[mm]	7.500	7.500
Width of the workspace	[mm]	1.500	1.500
Height of the workspace	[mm]	750	750
Max. load	[kg]	15.000	15.000
Min. annealing temperature	[°C]	470	470
Max. annealing temperature	[°C]	1.250	1.250
Min. heating output	[°C/h]	150	150
Max. cooling output	[°C/h]	70	70
Useable length of the cooling basin	[mm]	7.500	7.500
Useable length of the cooling basin (with traverse)	[mm]	1.500	1.500
Cooling medium	(Type)	Water	Water

Peelers

		Peeling bench Calow	Peeling bench Bültmann	Rotary peeling machine SMS
Location		Altena	Altena	Unna
Year of construction		1986	2013	2014
Max. unit weight	[kg]			8.000
Min./max. infeed diameter	[mm]	32/125	–/105	90/370
Min./max. outfeed diameter	[mm]	30/120	10/100	80/350
Min./max. infeed length	[mm]	3.000/11.700	2.500/12.000	3.000/8.000
Removal per pass on diameter (max.)	[mm]	5*	*	20
Average surface roughness [Ra]	[µm]	2,5	< 2,5	< 1
Tolerance diameter	[mm]	h11	h11**	IT 9

* depending on material and surface

** depending on the material properties, tolerances of < h9 can be reached

Turning lathes

		Rotary units HACO/ FAT -1-4
Location		Unna
Year of construction		2013
Min./max. infeed diameter	[mm]	100/700
Max. infeed diameter for lunette	[mm]	100/300
Max. unit weight	[kg]	10.000
Min./max. infeed length	[mm]	500/6.500
Removal per pass on diameter (max.)	[mm]	16
Average surface roughness [Ra]	[µm]	> 1,5
Tolerance diameter	[mm]	+/- 0,1

Pickling facilities Straightening

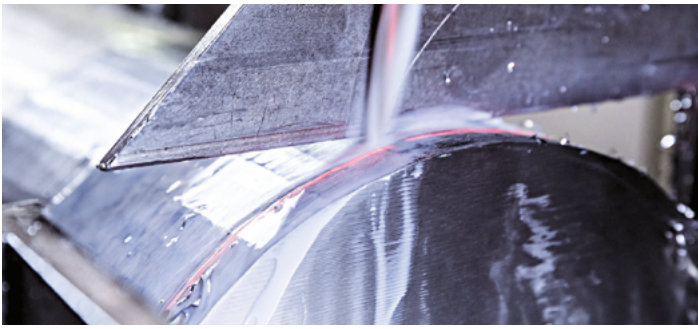
		Pickling unit
Location		Unna
Year of construction		2014
Min./max. infeed width	[mm]	0/650
Min./max. infeed diameter	[mm]	0/650
Notes:		Pickling medium: Nitric/ hydrofluoric acid

		Straightening press
Location		Unna
Year of construction		2013
Min./max. infeed diameter	[mm]	100/365
Straightening force	[kN]	1.500 to
Min./max. distance between counter bearing	[mm]	800/2.000
Straightness per meter	(mm/m)	> 1
Straightness of entire rod	(mm/rod)	> 3
Notes:		Max. diameter, depending on the material to be straightened

Blasting system Color penetrant testing system

		Blasting system Altena	Blasting system Unna	Color penetrant testing
Location		Altena	Unna	Altena
Year of construction		2013	2013	
Min./max. infeed height	[mm]		650	35/190
Min./max. infeed width	[mm]		1.000	35/190
Min./max. infeed diameter	[mm]	6/125		35/190
Max. unit weight	[kg]		6.000	6.000
Min./max. infeed length	[mm]	1.500/12.000	2.500/8.000	1.500/7.000

Cutting and sawing



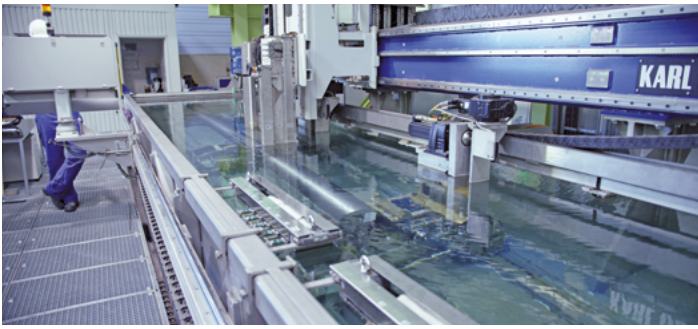
		Cutting system Uniprec 1	Cutting system Uniprec 2	Saw 1 (Behringer 540)	Saw 3 (Behringer 540)	Saw Amada
Location		Unna	Unna	Unna	Unna	Unna
Year of construction		2012	2013	2004	2016	
Min./max. infeed height	[mm]	120/400	100/320	40/550	12/630	
Min./max. infeed width	[mm]	120/400	100/320	40/600	12/540	
Min./max. in-feed diameter	[mm]	120/400		40/550	15/540	400/ 1.000
Min./max. outlet height	[mm]	120/400	100/320	s.o.	s.o.	
Min./max. outlet width	[mm]	120/400	100/320	s.o.	s.o.	
Min./max. out-feed diameter		120/400		s.o.	s.o.	400/ 1.000
Max. unit weight	[kg]	8.000	4.000	5.000	5.000	10.000
Min./max. infeed length	[mm]	8.500	8.000	50/8.000	25/8.000	9.000
Min./max. out-feed length	[mm]	8.500	8.000	15/2.000	10/2.000	9.000
Grinding stone width/diameter	[mm]	13/1.500	13/1.500			
Tolerable length to Ø 302 mm	[mm]	+5/-0	+5/-0	+3,2/-0	+2/-0	
Tolerable length > Ø 302 mm	[mm]	+5/-0	+5/-0	+6,4/-0	+4/-0	

plus dry cutting system Braun max. Ø 750 mm

Grinding systems

		Rod grinding machine Lidköpping 1	Rod grinding machine SMS	Rod grinding machine Lidköpping 2
Year of construction		1986 (Rebuild 2002)	2013	2006
Min./max. in-feed diameter	[mm]	8/100	6/125	15/50
Min./max. out-feed diameter	[mm]	8/100	6/< 125	15/50
Min./max. infeed length	[mm]	1.800/13.000	1.000/13.000	2.000/11.500
Removal per pass on diameter (max.)	[mm]	0,30	0,5	0,2
Average surface roughness [Ra]	[µm]	< 0,72	0,12–2	> 0,8
Grinding rod/ cutting wheel width/diameter	[mm]	305/660	400/600	254/508
Tolerance diameter	[mm]	h9	h6	h9

Ultrasonic testing



		US system Altena	US system Unna 1	US system Unna 2
Location		Altena	Unna	Unna
Year of construction			2013	1972
Min./max. infeed height	[mm]	10/60		80/500
Min./max. infeed width	[mm]	10/60		80/500
Min./max. infeed diameter	[mm]	10/60	90/400	150/400
Max. unit weight	[kg]		4.000	2.000/2.000
Min./max. infeed length	[mm]	10/11.500	1.000/6.000	1.100/5.000
Notes:		Flaw size “ERG” min. 1.6 mm; Eddy current and crack testing possible	Only testing of round material	

Testing possible according to DIN EN, ASME and NADCAP.

Your contact person

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