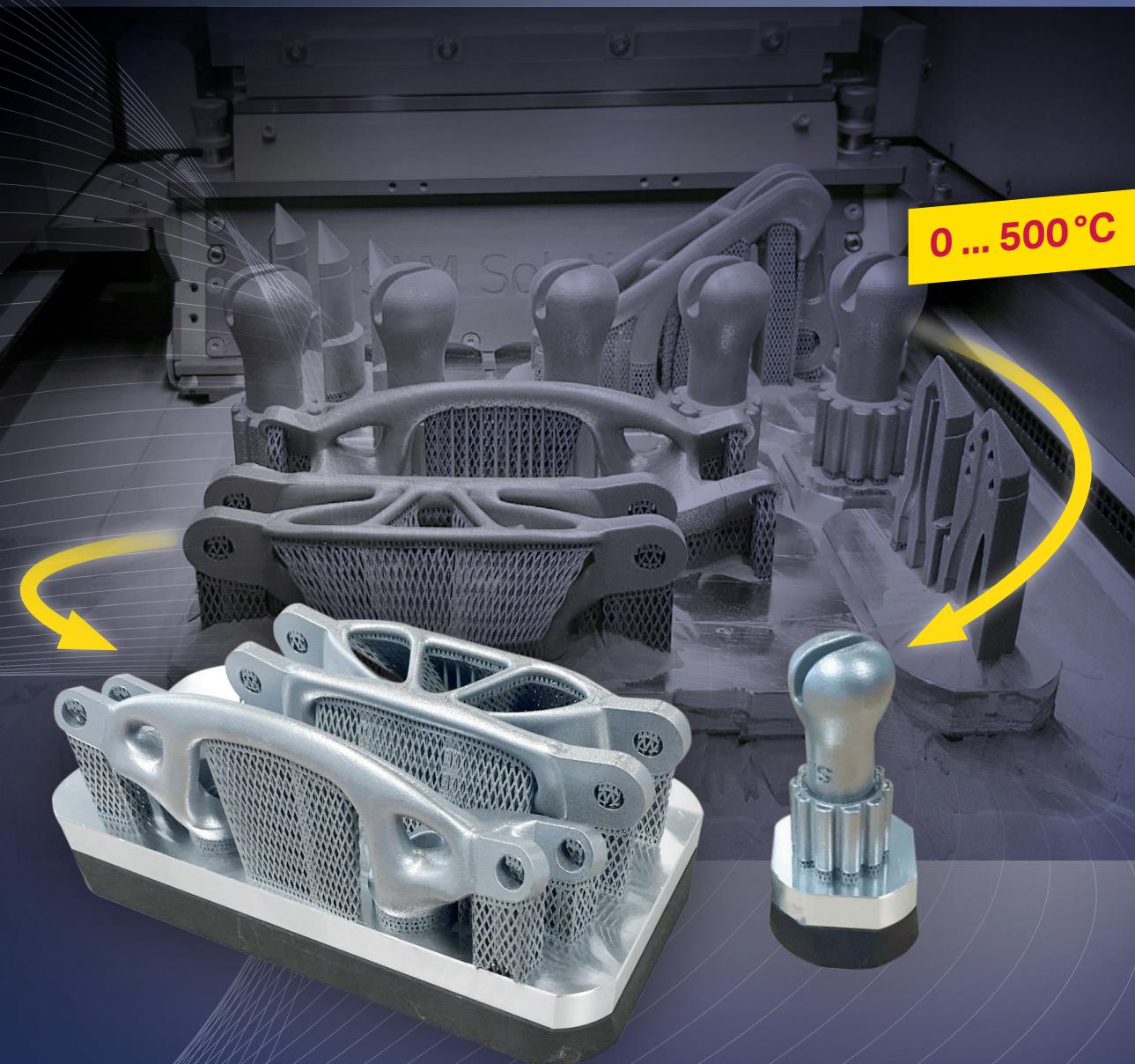


ADDITIVE⁺

Zero point clamping system for metal 3-D printing



AM
Series
Additives
Manufacturing

2021

AM-LOCK

05.2021 | EN

Patent applied for

An important step towards industrialization

 LEHMANN®

Swiss precision technology

Since 1974

Today, pL LEHMANN is still a family-owned and managed company in the hands of the second generation and present in over 20 countries (see the back of this catalog.).

The company is committed to typical Swiss values: ...

- Depth of manufacturing – over 90% developed and manufactured in-house
- Product quality – reliable, durable, safe
- High-tech – Industry 4.0-compatible, ready to be automated
- Innovation – in tune with the times, adaptable, trendsetting
- Sustainability – long-term approach to business, environmentally conscious
- Basic values – honest, correct, fair



* Sales and service partners trained and equipped by pL (VAR – value added resellers or VAP – value added partners)

For more, see www.lehmann-additive.com

... and specialized in rotary tables for over 40 years:

- | | |
|------|--|
| 1960 | Founding – Contract manufacturing |
| 1973 | Conversion into a stock corporation |
| 1974 | Introduction of the first numerically controlled rotary tables (HUST) |
| 1980 | Construction of new factory building |
| 1986 | Development of the 400 series |
| 1988 | 2nd generation joins the company's management |
| 1997 | Construction of new assembly building |
| 2000 | Development of the 800 series (direct drive up to 10,000 rpm) |
| 2002 | 2nd generation assumes management responsibility |
| 2003 | Development of the 700 series (direct drive up to 800 rpm) |
| 2008 | Addition of office building |
| 2010 | Development of the 500 series |
| 2011 | Start of internationalization / lean production |
| 2013 | Development of the high-speed version of the 500 series |
| 2016 | Expansion of factory building |
| 2017 | Introduction of the 600 series and the start of AM-LOCK development |
| 2019 | Introduction of the 900 DD series up to 5'450 rpm and market launch of AM-LOCK, as well as the development and introduction of the AM-SHAFT construction shaft concept |

Other pL products

CNC Rotary Tables classic



Main catalog - Series 500

CNC Rotary Tables direct drive



Main catalog - Series 900

AM-LOCK for economical production from powder to the finished workpiece



Extensive experience in machining and workpiece clamping



Additive-capable zero point and positioning system AM-LOCK, suitable for e.g.



Balanced material flow between human and machine

Capacities have to be leveled. Automation is not worthwhile everywhere. AM-LOCK facilitates rational manual operation. And can also be automated at any time.



Printed - ready for finishing



In finishing



Is this really the future?

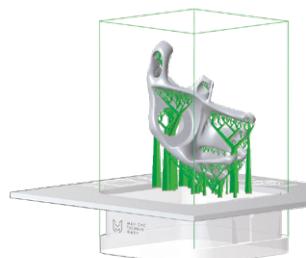


Ready to use



Fluent production: Data and material need to flow.
 Correct software and hardware is a prerequisite.
 AM-LOCK and CADS Additive are ready.

AM-LOCK plug-ins available for various systems: Implemented by CADS Additive



AM-Studio



Additive.Support



Additive.Core

➤ Software – data flow management

Pre-processing

Post-processing

Milling



3D printing



Oven



Cleaning



Measuring



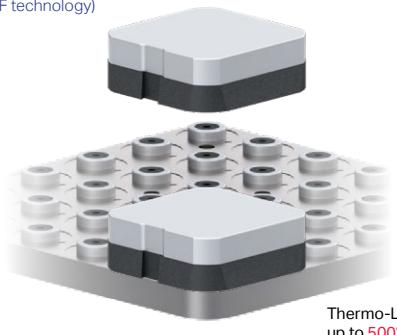
Milling



➤ Hardware – workpiece transfer by zero point system

Positioning & Thermo Lock

PBF printer
(e.g. LMF technology)



Thermo-Lock approved
up to 500°C



Heat treatment approved
up to 650°C

Positioning & Ball Lock

Final machining /
Finishing
(e.g. CNC machine)



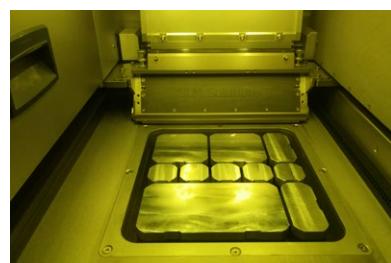
Industrialized additive PBF manufacturing

- Shortest possible fire-to-fire time, even without automation
- Segmentable print platform for max. flexibility
- Simple and fast de-powdering - lift out and shake out

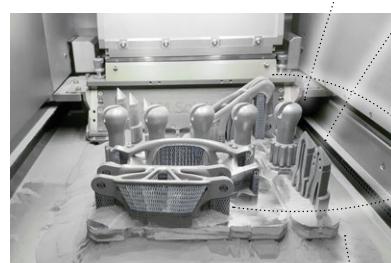
PBF Machine

Printing process
(Example)

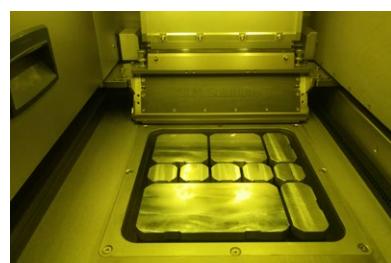
Result



10 AM-LOCK pallets are individually printed and afterwards the workpieces are immediately ready for further processing ...



... and a short time later, the machine can continue printing – greatly reduced fire-to-fire time increases the productivity of the LMF machine enormously ...



- Zero point clamping for seamless postprocessing
- Hybrid production
- Automating one step at a time

Individual channelization of workpieces to correct postprocessing

Heat treating

For instance, stress-free annealing tested on the AM-LOCK pallet itself **up to 650°C** (inert gas required!)



Machining

Machining (milling, boring/drilling, thread cutting, grinding, EDM, sawing...) on the AM-LOCK pallet.

Where necessary, adaptable to different zero point clamping systems such as SCHUNK, EROWA, ZEROCLAMP, LANG, AMF, SYSTEM 3R, GRESSEL ...



Clean

Mechanical cleaning as required (pressure, vacuum, heat, vibration ...) or 'Hirtisation' an electro-chemical cleaning method



Measurement

Measurement of the printed workpieces – before, between or at the end of all postprocessing operations



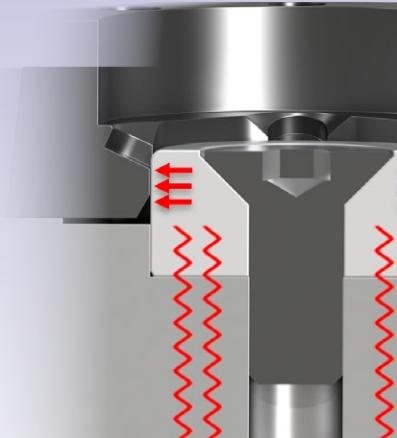
X-raying

Metallurgical examination of the printed microstructure



Positioning & Thermo Lock

- No mechanical movements, no seals
- Integrated heating possible
- Repeat accuracy – even without heating
- Good pallet handling – pins protrude only 6 mm

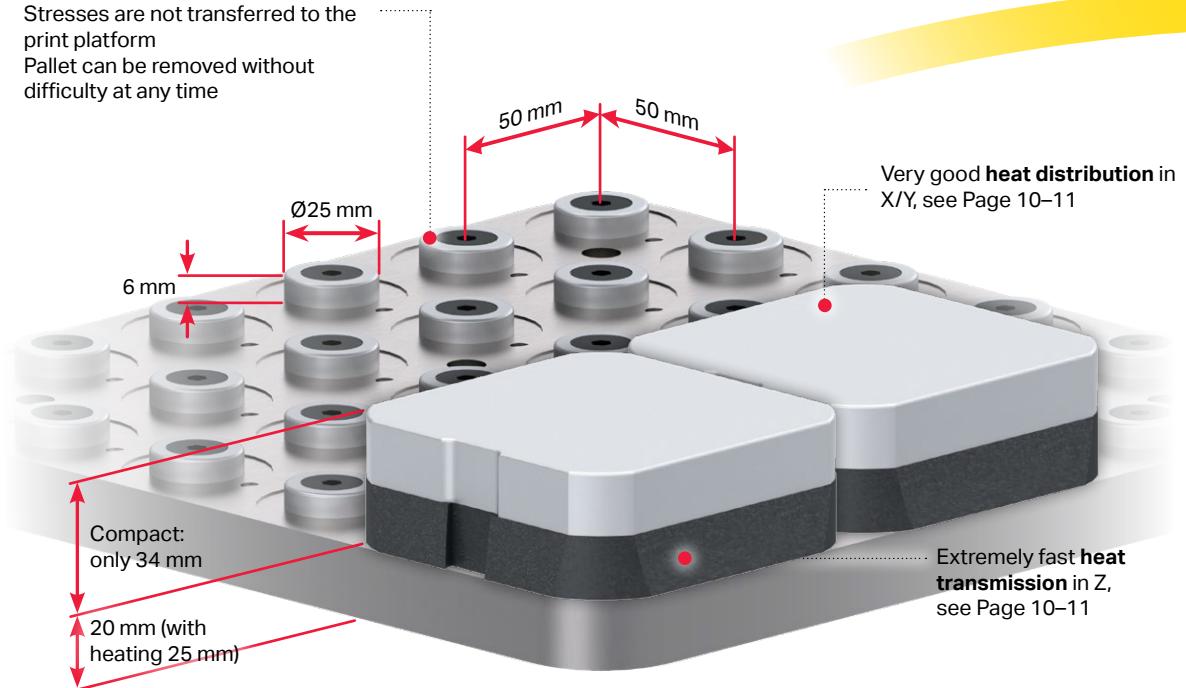


Printing approved up to 500°C

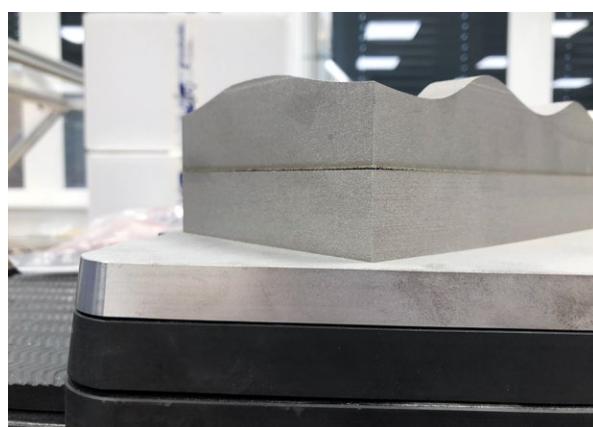
Workpiece can be machined on 5 sides after 3-D printing

Not a positive connection

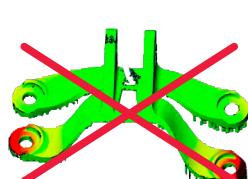
- Stresses are not transferred to the print platform
- Pallet can be removed without difficulty at any time



«Shoe sole pressure»



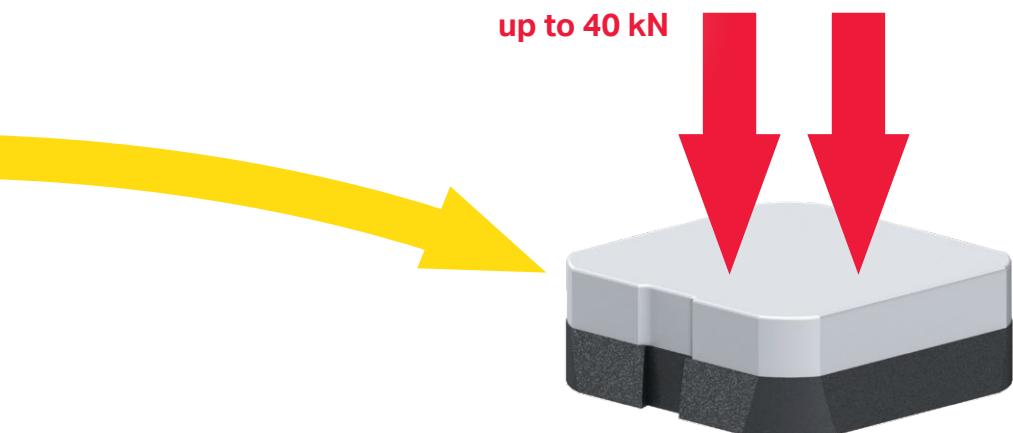
AM-LOCK prevents both high internal stress in the workpiece and dangerous screw breakage as the pallets can yield without losing position



AM-LOCK absorbs stresses, pallet can be easily removed

Positioning & Ball Lock

- Simple, easy to handle, can be automated
- High cutting capacity
- Adaptable to other zero point clamping systems



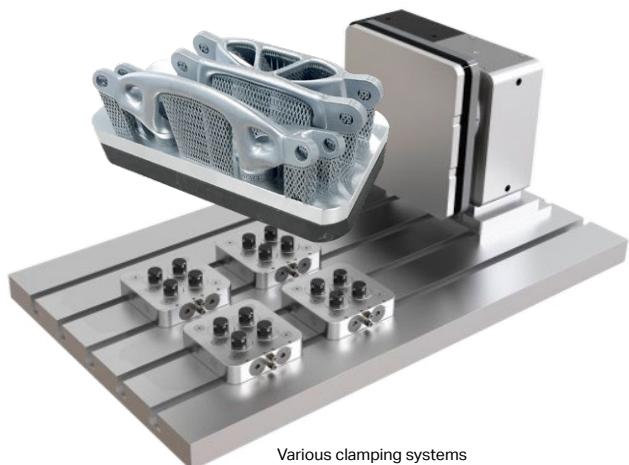
The substrate plate (silver) can be easily unscrewed from the base plate (black) at any time.

2 in 1: Prepared for manual or pneumatic clamping – standard

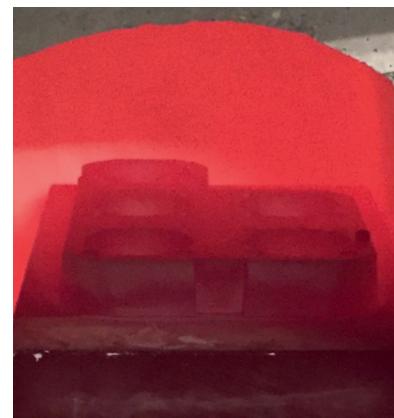


Pallets powerfully clamped and ready for 5-sided machining ...

... or approved for use in an annealing furnace up to 650°C



Various clamping systems

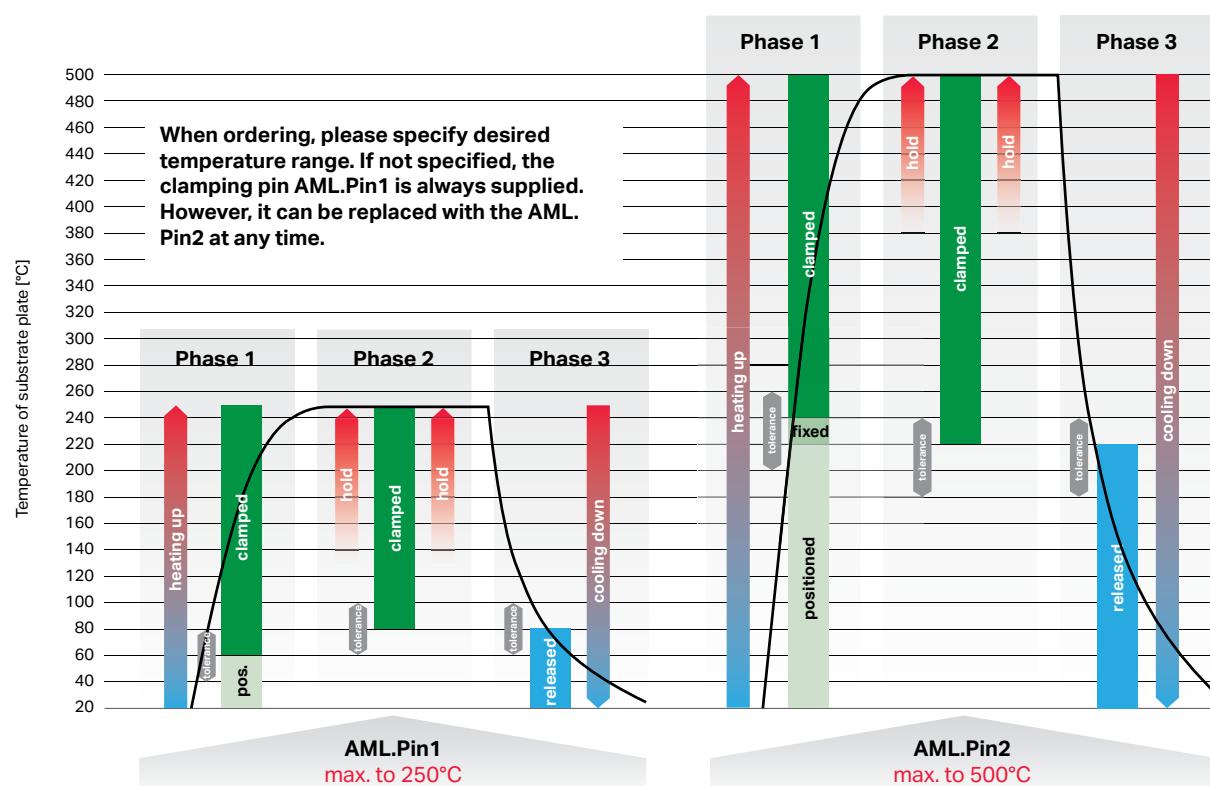


AM-LOCK pallets – here for test purposes at 750 °C

The patent pending «Thermo-Lock»

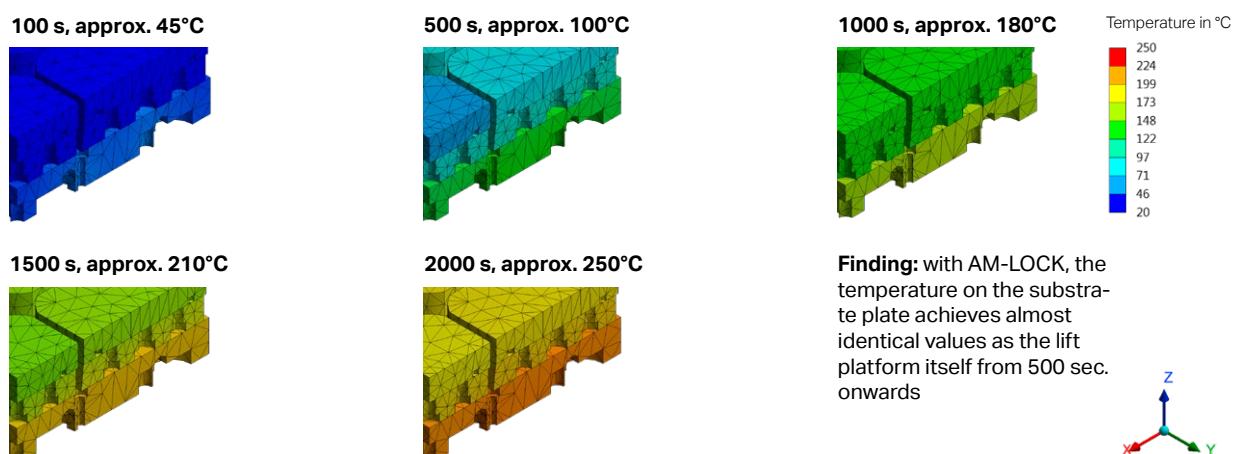
- High positioning accuracy even at room temperature
- Suitable for platform heating up to 500 °C
- Fast and even heat distribution

«Thermo-Lock» functional capabilities



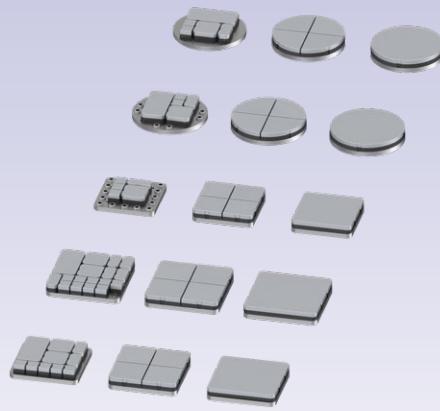
Very good thermal conductivity

Heat transmission with AM-LOCK in Z and heat distribution with AM-SHAFT in X/Y



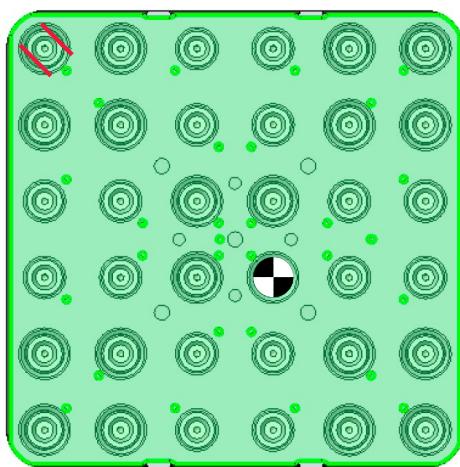
Simple, modular, can be retrofitted

- Suitable for use with all machines from small to large
- Optimized for use in working enclosures commonly found on the market
- With integrated platform heating (optional)

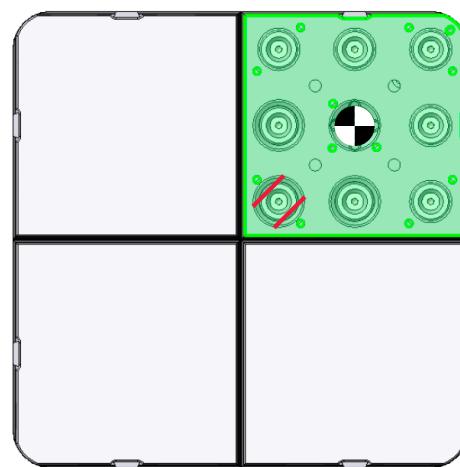


AM-LOCK 'Thermo-Lock' – precise thermal zero point clamping technology

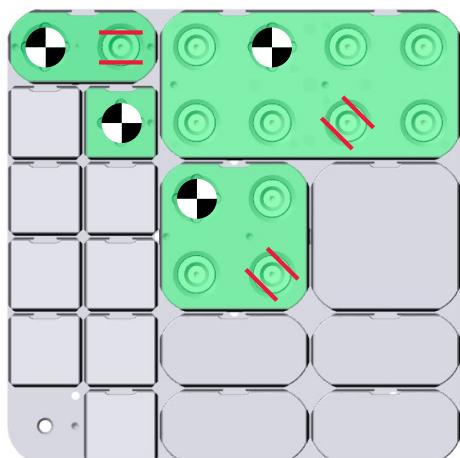
No segmentation – JUMBO pallet



4x segmentation – PIZZA pallets



Poly-segmentation – STANDARD pallets



— Angular positioning: Clearance between pallet and pin max. 0.02...0.025 mm
— X/Y-zero point

Technical data

		AML.Pin1	AML.Pin2
Field of use	°C	20...250	20...500
Retention force, clamped* (per pallet)	kN	approx. 0.8 from min. 80°C	approx. 0.8 from min. 270°C
Position accuracy - X/Y ** (at 20°C)	mm	+/- 0.007	+/- 0.011
Position accuracy - angular** (at 20°C)	mm	+/- 0.020	+/- 0.025

* For temperatures, see top of p. 10

** Accuracy in clamped state much better

The clamping pin is subject to fatigue (depending on the intensity of use) and is therefore a wearing part. In the event of changes or damage, the clamping pin can simply be reordered and easily replaced

Practical application

- Clamping pin easily replaced
- Individual use
- Remove pallets safely



Arrangement on grid plate (standard version)



The grid plates are fitted with the correct number of clamping pins and cover pins.

Depending on the platform size and desired segmentation, unneeded or missing pins can be easily added or removed at any time.



Pockets that pose problems because of missing pins can be closed neatly with a cover pin. This simplifies cleaning.

Item no. **AML.Pin3**

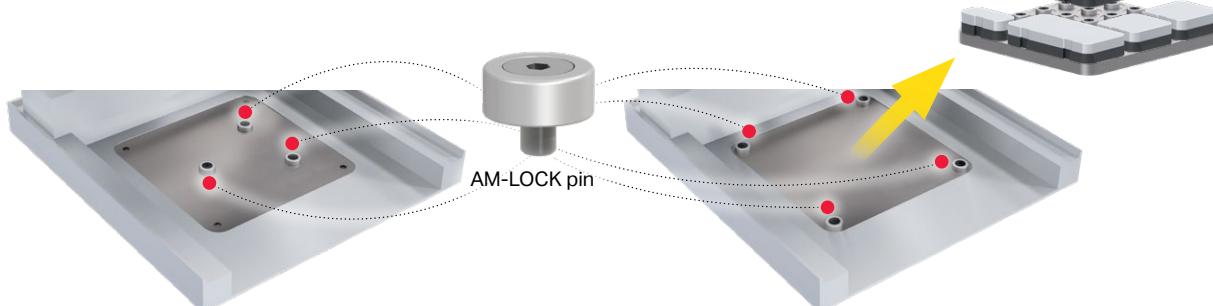
Pallet handling

Simple gripper for safe manual removal of hot pallets.
We recommend SCHUNK for automation.



Individualization for unlimited possibilities (on request)

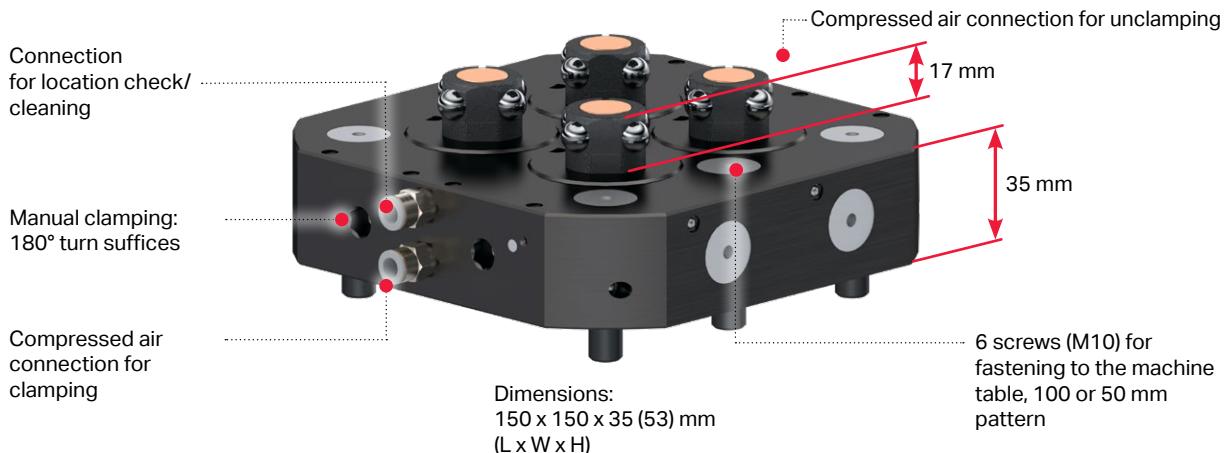
- For custom substrate plate shapes
- Double platform for depowdering and setup during processing



Chuck with «Ball-Lock» – Positive ball clamping

- For direct mounting of AM-LOCK pallets
- 3 in 1: Manual, continuous pressure or pulsed clamping
- Automatic-mechanical safety feature holds pallet securely in position, even in the event of a pressure drop
- Simple installation, minimal maintenance

AM-LOCK-QUATTRO chuck



AM-LOCK-UNO chuck



Technical data

QUATTRO	UNO	Repeat accuracy X/Y/Z	Retention force, clamped	
			Manual	Pneumatic at 6 bar
approx. ± 0.005 mm	approx. 6 kN	approx. 10 kN		
	approx. 24 kN	approx. 40 kN		

Connections on the bottom as on the AM-LOCK-QUATTRO chuck (see above)

Tooling for individual finish machining / finishing



Jumbo pallet (300 x 300 mm) on
centered AM-LOCK QUATTRO chuck
for easy machining



Jumbo pallet (300 x 300 mm) on
4x AMLOCK-QUATTRO chucks for
higher machining forces

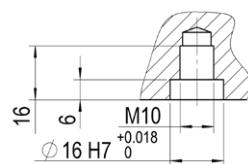


Simple adaptation to other zero point clamping systems with AM-LOCK adapter pins

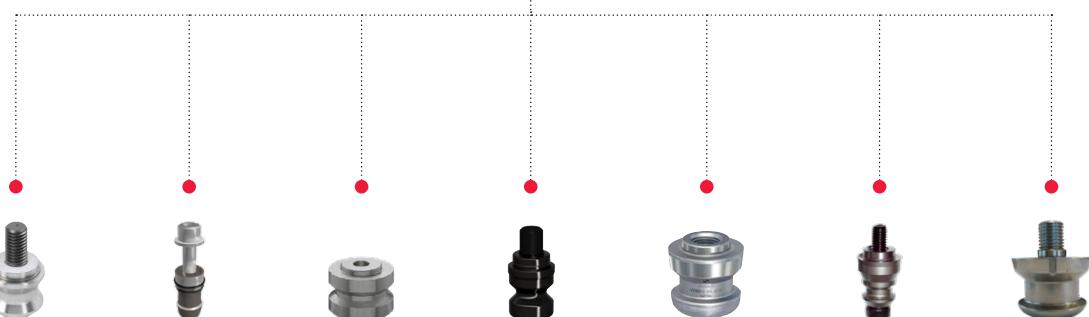
- Only ONE system for MANY thanks to AM-LOCK
- Clear cost benefits
- Tests in the powder bed are not needed for all these systems
- Much smaller grid spacing possible (50 mm instead of usually only 100 mm minimum)



AML clamping pin
AML.AdaB-xxxx



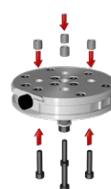
Standard clamping pin
AML.AdaM-xxxx



EROWA



system 3R



Adapter pallet LANG-EROWA
for EROWA ITS



AML clamping pin
AML.AdaB-xxxx

AM-LOCK-side equipped with ball
clamping mechanism, bottom matches
corresponding third-party system



Standard clamping pin
AML.AdaM-xxxx

AM-LOCK-side equipped with thread
M10/d16H7, bottom matches corres-
ponding third-party system

Zero point clamping systems (catalog values of manufacturer)

	pL LEHMANN Item no.*	Type	Pin Ø [mm]	Locating Ø [mm]	Pin threads, standard	Chuck Ø [mm]	Minimum grid spacing [mm]	System manufacturer's item no.**
AMF 	AML.AdaX-AMF1	K02	10	7.14	M5	22	50	427302
	AML.AdaX-AMF2	K5	15	10	M6 d10 / M8 d11	45	50	306019
	AML.AdaX-AMF2	K5.3	15	10	M6 d10 / M8 d11	78	100	306019
	AML.AdaX-AMF3	K10	22	15	M8 d15 / M10 d15	78	100	554936
	AML.AdaX-AMF3	K10.2	22	15	M8 d15 / M10 d15	112	150	554936
	AML.AdaX-AMF3	K10.3	22	15	M8 d15 / M10 d15	112	150	554936
	AML.AdaX-AMF4	K20	32	12	M12 d25 / M16 d25	112	150	303149 (M10)
	AML.AdaX-AMF4	K20.3	32	25	M12 d25 / M16 d25	138	150	303149 (M10)
EROWA 	AML.AdaX-ERO1	MTS	27	18	M10/M12	130	150	ER-135745
	AML.AdaX-ERO1	MTS 2.0	27	18	M10/M12	130	150	ER-135745
	AML.AdaX-ERO1	MTS 81	27	18	M10/M12	81	100	ER-135745
	AML.AdaX-ERO2	P Ø148 inox			Adapter pallets EROWA to LANG 52	148	150	ER-098667
	AML.AdaX-ERO3	PM85 Precise			Adapter pallets EROWA to LANG 52	100	150	ER-107762
	AML.AdaX-ERO4	RN PC 210			Adapter pallets EROWA to LANG 52 & 96	210	250	ER-107761
Gressel 	AML.AdaX-GRE1	Gredoc	40	25	M10	148	200	on request
Lang 	AML.AdaX-LAN1	QuickPoint 52	16	12	M8		104	45270 SO000677
	AML.AdaX-LAN2	QuickPoint 96	20	16	M10		176	45570 (standard)
	AML.AdaX-SCH1	micro	10	6	M4	49	50	on request
	AML.AdaX-SCH2	mini	20	12	M8/d=6 mm	90	100	on request
	AML.AdaX-SCH3	Vero-S	40	25	M12/M16	138	150	047115x
	AML.AdaX-SCH3	Veros 99	40	25	M12/M16	99	100	047115x
	AML.AdaX-S3R1	Delphin HCP	28	20	M10 d20	95	100	X6884xx
	AML.AdaX-S3R1	Delphin xHP	28	20	M10 d20	138	200	X6884xx
system 3R 	AML.AdaX-S3R1	Delphin xSP	28	20	M10 d20	115	200	X6884xx
	AML.AdaX-ZER1	90	?	12/14	12M10/14M12	90	100	on request
	AML.AdaX-ZER2	120	?	12/16/ 18/25	12M10 / 16M8 / 16M10 / 18M12 / 25M10	120	150	on request
	AML.AdaX-ZER2	138	?	12/18/ 25	12M10 / 18M12 / 18M16 / 25M16 / 25M10	138	150	on request
Zeroclamp 								

* **X** = M for M10 thread, **B** for ball clamping mechanism

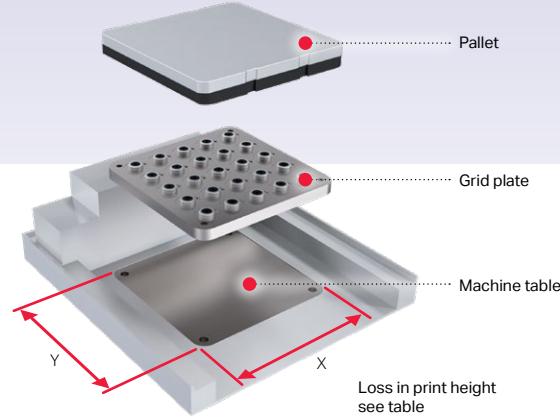
** Item nos. are incomplete, since usually available in 3 versions (position, anti-rotate feature, undersize)

Note

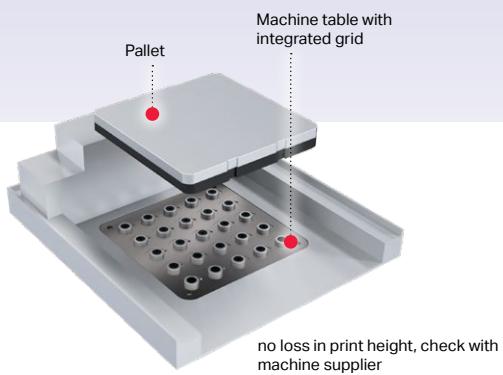
The item no. always includes 1 item; specify the desired quantity with inquiry/order on the basis of pallet and number of pallets

Machine Overview

On-top version



Built-in version



Machines for AM-LOCK on-top-version (new and existing machines, can be retrofitted)

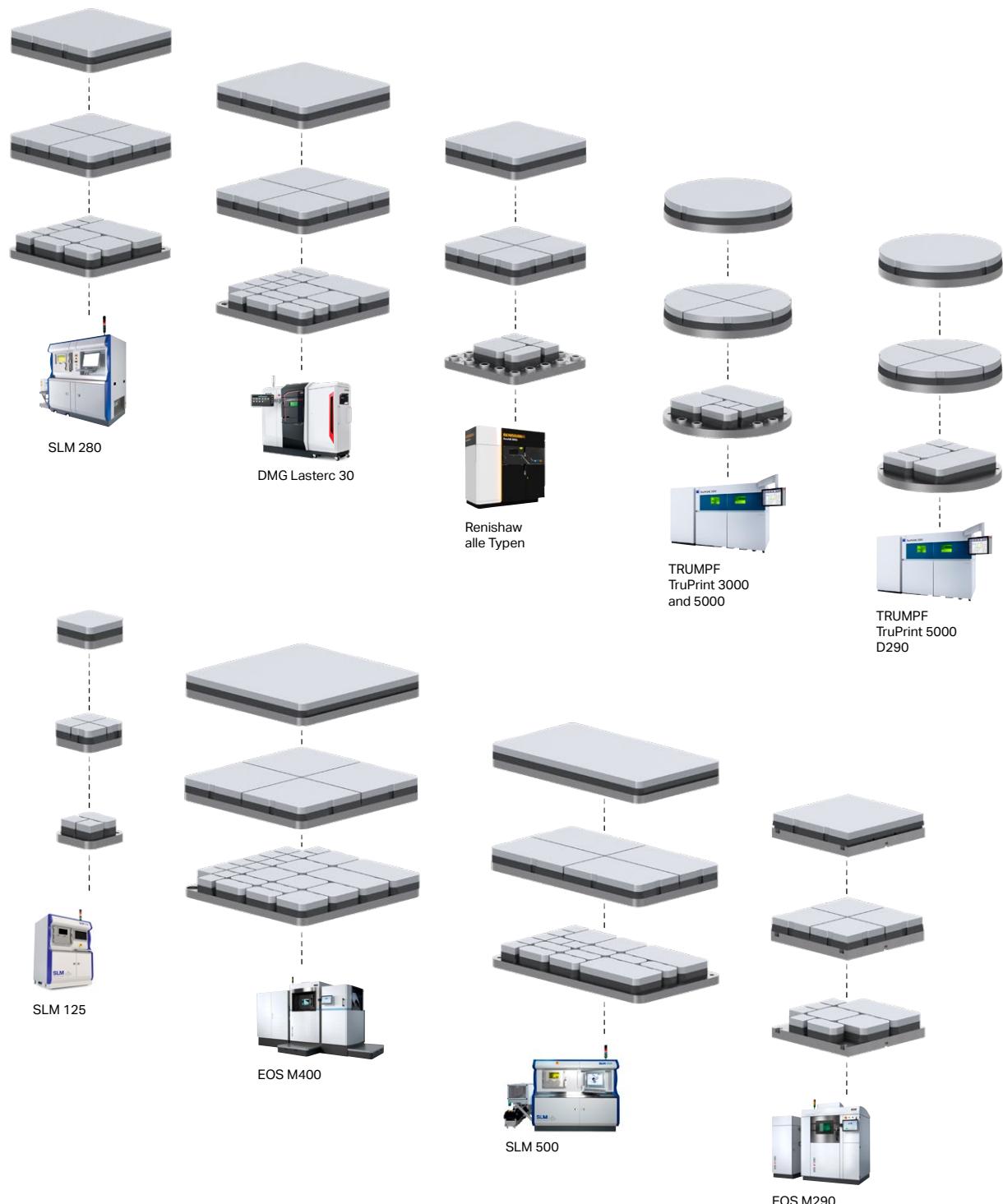
Brand	Type	Platform heating	Print volume			Quantity lasers	Loss in print height, approx.* [mm]	Grid plate AM-LOCK ACTUAL dimension [mm]
			X [mm]	Y [mm]	Print height [mm]			
 Concept Laser	Mlab cusing (R) (200R) -50		50	50	80	1	33	
	Mlab cusing (R) (200R) -70		70	70	80	1	33	
	Mlab cusing (R) -90		90	90	80	1	33	
	Mlab cusing 200R		100	100	100	1	33	
	M1 cusing		250	250	250	1	33	
	M2 cusing		250	250	280	1	33	
	M2 cusing Multilaser		250	250	280	2	33	
	M LINE FACTORY		400	400	425	4	33	
	X LINE 2000R		800	400	500	2	33	
 DMG Realizer	Lasertec 12 slm		125	125	200	1	33	125 x 125
	Lasertec 30 slm		300	300	300	1	built-in: -6...14 on-top: 13...33	300 x 300
 EOS	Precious M 080 (round)		Ø80	Ø80	95	1	33	
	M 100 (round)		Ø100	Ø100	95	1	33	
	M 290		250	250	325	1	33	252 x 252
	M 300-4		300	300	400	4	33	300 x 300
	M 400		400	400	400	1	33	398 x 398
	M 400-4		400	400	400	4	33	398 x 398
 OR Laser	CREATOR	200°C	Ø100	Ø100	100	1	built-in: 0 on-top: 33	Ø100
 Renishaw	AM 250	200°C	250	250	350	1	33	246 x 246
	AM 400	200°C	250	250	350	1	33	246 x 246
	RenAM 500	200°C	250	250	350	1	33	246 x 246
	RenAM 500Q	200°C	250	250	350	4	33	246 x 246
 SLM	125	200°C	125	125	200	1	33	123 x 123
	280 2.0	200°C	280	280	365	1 (opt. 2)	33	278 x 278
	280 Production Line	200°C	280	280	365	1 (opt. 2)	33	278 x 278
	500 (HL)	200°C	500	280	365	2 (opt. 4)	33	496 x 278
	800	200°C	500	280	850	4	33	496 x 278
	TruPrint 1000 / Sisma MySint 100	Ø100	Ø100	100	1 (opt. 2)	33	Ø100	
 TRUMPF	TruPrint 2000	200°C	Ø200	Ø200	200	1 (opt. 2)	33	Ø200
	TruPrint 3000	200°C	Ø300	Ø300	400	1	33	Ø300
	TruPrint 5000	200°C	Ø300	Ø300	400	3	33	Ø300
	TruPrint 5000	500°C	Ø290	Ø290	400	3	33	Ø290

* When our AM-LOCK system is retrofitted, a loss in print height can be compensated partially in the machine. Check with your machine supplier.

How you can palletize your machine (examples)

Many other segmentation variants possible

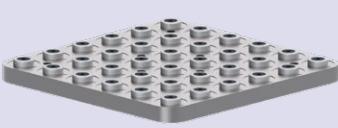
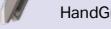
Note: Due to the corner radii, the smallest pallet cannot be used in the corners on all machines



Grid plates and other accessories

Please contact the factory regarding grid plates for other machines or whether built-in heating is possible

Non-rusting versions (hard chrome-plated) on request = option

	pL LEHMANN Item no.	Machine	Dimensions [mm]	Weight [kg]	
Grid plates		AML.RP-DMGL30set	300x300mm, 36 pins	13.15	
		AML.RP-EOS290set	250x250mm, 21 pins	9.13	
		AML.RP-EOS400set	400x400mm, 64 pins	23.38	
		AML.RP-REN250set	Renishaw	250x250mm, 25 pins	9.13
		AML.RP-SLM125set	SLM 125	125x125mm, 4 pins	2.28
		AML.RP-SLM280set	SLM 280	280x280mm, 25 pins	11.46
		AML.RP-SLM500set	SLM 500	500x280mm, 45 pins	20.46
		AML.RP-TRU200set	TruPrint 2000	Ø200mm, 9 pins	4.69
		AML.RP-TRU529set	TruPrint 5000 HT	Ø290mm, 16 pins	8.81
		AML.RP-TRU530set	TruPrint 3000/5000	Ø300mm, 24 pins	9.43
		AML.Pin0	AML positioning pin	Ø25 positionning, without ThermoLock	0.01
		AML.Pin1	AML ThermoPin	Ø25 positionning, <250°C	0.01
		AML.Pin1-TRU	AML ThermoPin	Ø25mm,<250°C, for TruPrint 1000 & Sisma 100	0.01
		AML.Pin2a	AML ThermoPin	Ø25 positionning, 260°C...370°C	0.03
		AML.Pin2b	AML ThermoPin	Ø25 positionning, 380°C...500°C	0.03
		AML.Pin3	AML Cover pom	Ø25, cover only	0.01
Chuck & Accessories		AML.HZ-PA040	Built-in heater	Ø12.5x40 mm, 48 V / 200 W	0.03
		AML.HZ-PA100	Built-in heater	Ø12.5x100 mm, 230 V / 400 W	0.09
		AML.HZ-PA125	Built-in heater	Ø12.5x125 mm, 230 V / 400 W	0.11
		AML.HZ-SG	electrical control unit for heater		1.40
		AML.HZ-Vor	Preparation for heater installation	per cartridge	0.00
		AML.SPF-Q-2	QUATTRO chuck	150x150x34 mm, 4 pins, with autobloc	4.70
		AML.SPF-U	UNO chuck	Ø50x34mm, 1 Pin, with autobloc	1.18
		AML.AdaB-LAN52	AML clamping pin with balls	Quickpoint 52	0.10
		AML.AdaB-LAN96	AML clamping pin with balls	Quickpoint 96	0.10
		AML.AdaM-LAN52	AML clamping pin M10	Quickpoint 52	0.05
		AML.AdaM-LAN96	AML clamping pin M10	Quickpoint 96	0.05
		AML.GRIP	HandGrip	for pallet	0.26

Pallets = Substrate plates + base plates

Please contact the factory regarding other machine types.

Non-rusting versions (hard chrome-plated) on request = option

	pL LEHMANN Item no.	Machine	Dimensions [mm]	Weight [kg]
Substrate plates	AML.SU05x05-ST	Standard	Steel, 50x50 mm	0.23
	AML.SU05x10-ST	Standard	Steel, 50x100 mm	0.53
	AML.SU10x10-ST	Standard	Steel, 100x100 mm	1.15
	AML.SU10x20-ST	Standard	Steel, 100x200 mm	2.40
	AML.SU15x15-ST	Standard	Steel, 150x150 mm	2.73
	AML.SU-DMGL30P-ST	DMG Lasertec 30	Steel, 150x150 mm «Pizza»	2.73
	AML.SU-DMGL30-ST	DMG Lasertec 30	Steel, 300x300 mm «Jumbo»	11.41
	AML.SU-EOS290P-ST	EOS 290	Steel, 125x125 mm «Pizza»	1.90
	AML.SU-EOS290-ST	EOS 290	Steel, 250x250 mm «Jumbo»	7.76
	AML.SU-EOS400P-ST	EOS 400	Steel, 200x200 mm «Pizza»	4.97
	AML.SU-EOS400-ST	EOS 400	Steel, 400x400 mm «Jumbo»	20.71
	AML.SU-ORL100-ST	OR Laser Creator	Steel, Ø100 mm «Jumbo»	1.05
	AML.SU-REN250P-ST	Renishaw	Steel, 125x125 mm «Pizza»	1.90
	AML.SU-REN250-ST	Renishaw	Steel, 250x250 mm «Jumbo»	7.76
	AML.SU-SLM125P-ST	SLM 125	Steel, 62x62 mm «Pizza»	0.48
	AML.SU-SLM125-ST	SLM 125	Steel, 125x125 mm «Jumbo»	1.90
	AML.SU-SLM280P-ST	SLM 280	Steel, 140x140 mm «Pizza»	2.30
	AML.SU-SLM280-ST	SLM 280	Steel, 280x280 mm «Jumbo»	9.73
	AML.SU-SLM500P.1-ST	SLM 500	Steel, 250x140 mm «Pizza»	4.37
	AML.SU-SLM500P.2-ST	SLM 500	Steel, 250x140 mm «Pizza»	4.37
	AML.SU-SLM500-ST	SLM 500	Steel, 500x280 mm «Jumbo»	17.49
	AML.SU-TRU100-ST	TruPrint 1000	Steel, Ø100 mm «Jumbo»	1.05
	AML.SU-TRU200P-ST	TruPrint 2000	Steel, Ø200 mm «Pizza»	1.05
	AML.SU-TRU200-ST	TruPrint 2000	Steel, Ø200 mm «Jumbo»	4.19
	AML.SU-TRU529P-ST	TruPrint 5000 HT	Steel, Ø290 mm «Pizza»	2.05
	AML.SU-TRU529-ST	TruPrint 5000 HT	Steel, Ø290 mm «Jumbo»	8.20
	AML.SU-TRU530P-ST	TruPrint 3000/5000	Steel, Ø300 mm «Pizza»	8.96
	AML.SU-TRU530-ST	TruPrint 3000/5000	Steel, Ø300 mm «Jumbo»	2.24
Set of base plates	AML.GP05x05set	Standard	50x50 mm	0.15
	AML.GP05x10set	Standard	50x100 mm	0.36
	AML.GP10x10set	Standard	100x100 mm	0.77
	AML.GP10x20set	Standard	100x200 mm	1.73
	AML.GP15x15set	Standard	150x150 mm	1.95
	AML.GP-DMGL30Pset	DMG Lasertec 30	150x150 mm «Pizza»	1.95
	AML.GP-DMGL30set	DMG Lasertec 30	300x300 mm «Jumbo»	13.15
	AML.GP-EOS290Pset	EOS 290	125x125 mm «Pizza»	2.28
	AML.GP-EOS290set	EOS 290	250x250 mm «Jumbo»	9.13
	AML.GP-EOS400Pset	EOS 400	200x200 mm «Pizza»	5.84
	AML.GP-EOS400set	EOS 400	400x400 mm «Jumbo»	23.37
	AML.GP-ORL100set	OR Laser Creator	Ø100 mm	1.05
	AML.GP-REN250Pset	Renishaw	125x125 mm «Pizza»	2.28
	AML.GP-REN250set	Renishaw	250x250 mm «Jumbo»	9.13
	AML.GP-SLM125Pset	SLM 125	62x62 mm «Pizza»	0.57
	AML.GP-SLM125set	SLM 125	125x125 mm «Jumbo»	2.28
	AML.GP-SLM280Pset	SLM 280	140x140 mm «Pizza»	2.87
	AML.GP-SLM280set	SLM 280	280x280 mm «Jumbo»	11.46
	AML.GP-SLM500P.1set	SLM 500	250x140 mm «Pizza»	5.15
	AML.GP-SLM500P.2set	SLM 500	250x140 mm «Pizza»	5.15
	AML.GP-SLM500set	SLM 500	500x280 mm «Jumbo»	20.59
	AML.GP-TRU100set	TruPrint 1000 / Sisma MySynt 100	Ø100 mm	1.05
	AML.GP-TRU200Pset	TruPrint 2000	Ø200 mm «Pizza»	1.05
	AML.GP-TRU200set	TruPrint 2000	Ø200 mm «Jumbo»	4.19
	AML.GP-TRU529Pset	TruPrint 5000 HT	Ø290 mm «Pizza»	2.20
	AML.GP-TRU529set	TruPrint 5000 HT	Ø290 mm «Jumbo»	8.81
	AML.GP-TRU530Pset	TruPrint 3000/5000	Ø300 mm «Pizza»	2.36
	AML.GP-TRU530set	TruPrint 3000/5000	Ø300 mm «Jumbo»	9.43



ROTARY TABLES · PRECISION TECHNOLOGY · SOFTWARE

Headquarters

PETER LEHMANN AG
CH-3552 Bärau
Phone +41 (0)34 409 66 66
Fax +41 (0)34 409 66 00
sales@plemann.com
www.lehmann-additive.com
www.lehmann-rotary-tables.com

Global network

Europe

- Austria
- Benelux
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Hungary
- Ireland
- Italy
- Norway
- Poland
- Portugal
- Russia
- Slovenia
- Spain
- Sweden
- Turkey
- UK

America

- Brazil
- Canada
- Mexico
- USA

Asia

- China
- India
- Japan
- Malaysia
- Singapore
- South Korea
- Taiwan
- Thailand
- Vietnam



● Headquarters

● direct sales/service partner

● pL SOLUTIONS® partner

● value added reseller & partner

More information (address, telephone number...) at www.lehmann-rotary-tables.com