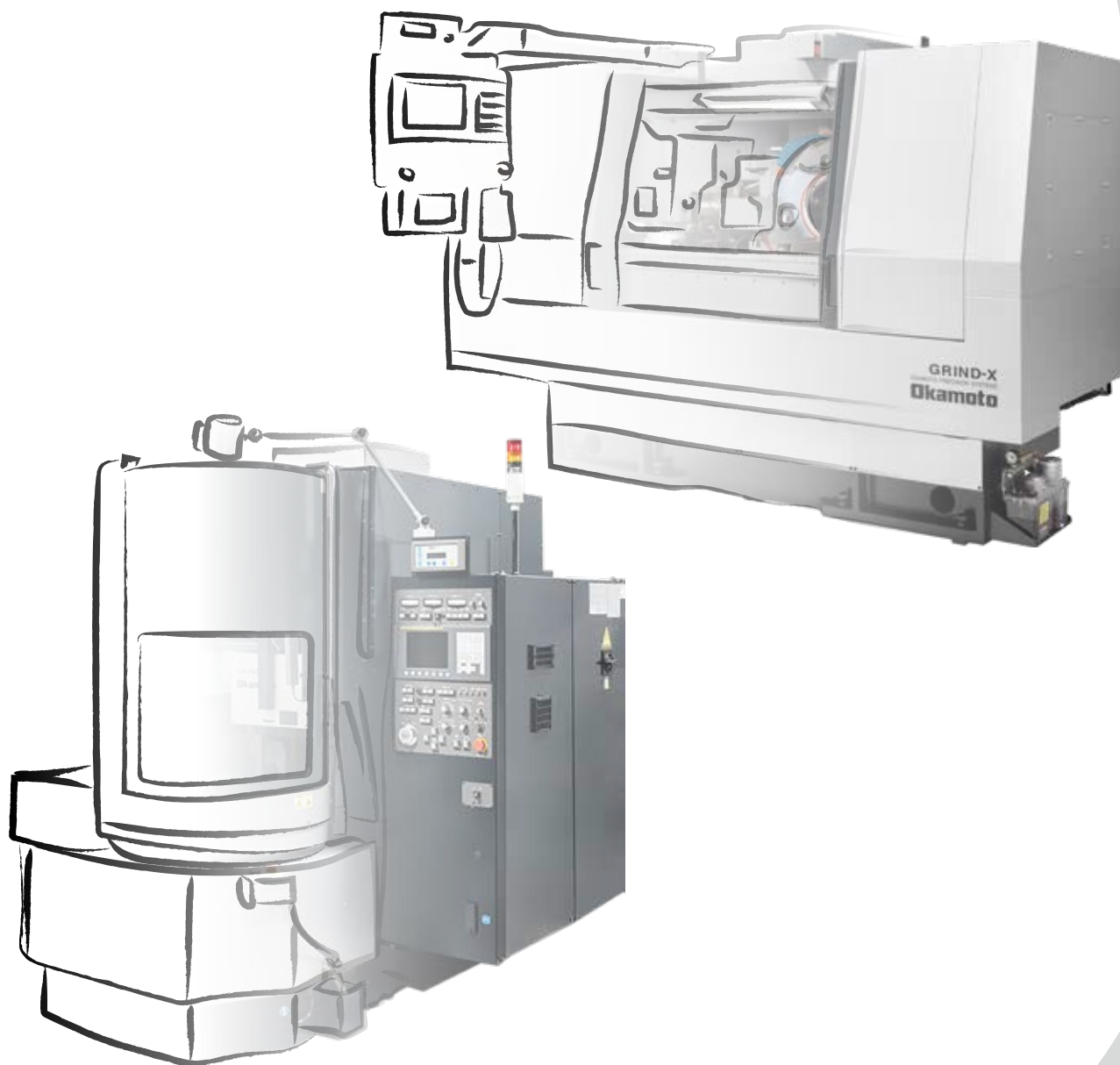


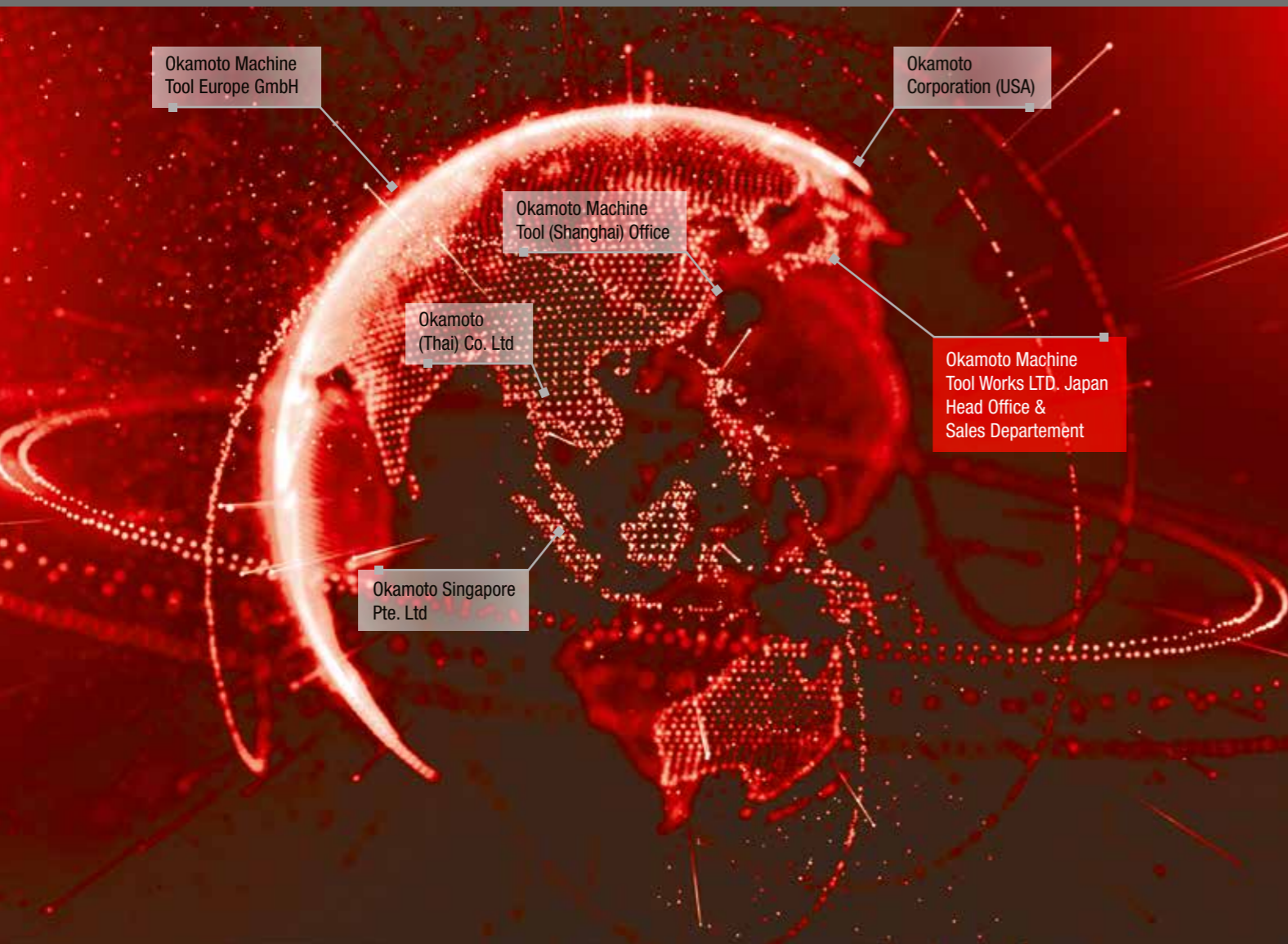
GRIND - X
OKAMOTO PRECISION SYSTEMS
Okamoto

GRINDING SOLUTIONS



PERFECTION
IN FORM & TECHNOLOGY

WORLD OF OKAMOTO



The Company

World leading.

Our grinding machines guarantee safety through the highest precision.

Okamoto Machine Tool Works Ltd. Japan has been the world's leading manufacturer of high-quality grinding machines and related equipment since 1926. OKAMOTO MACHINE TOOL EUROPE GMBH headquartered in Langen near Frankfurt am Main has been serving the European market since 1992 as its main office. The continued growth of the company has given rise to a network of subsidiaries and sales organizations in over 70 countries. Major production facilities are in Japan, Singapore and Thailand.

The intensive cooperation of Okamoto Machine Tool Works Ltd. Japan and Okamoto Machine Tool Europe GmbH in Langen is a guarantor for the development and production of innovative grinding machines with highest precision. In our work, we strive to respond positively to the developments in the market and use investments for future growth for the overall success of our company.

Okamoto Machine Tool Works Ltd. Japan, as well as Okamoto Machine Tool Europe GmbH is a customer-oriented, internationally operating company - a modern service provider with high service quality. Our full service strategy focuses on the customer with his needs. The aim is to provide our customers with innovative products with the highest precision, reliability, quality and handling. In our modern demonstration and application center at Okamoto Machine Tool Europe GmbH in Langen, we present an interesting cross section of our product range.

We rely on a long-term, reliable, successful, trusting and partnership-based cooperation with our customers and partners.

Okamoto
Machine Tool Europe GmbH
Frankfurt (Germany)



WORLD OF OKAMOTO



Proximity to customers

Always in line with customers' needs – that makes all the difference.

Efficient advice and after-sales-service.

Okamoto Machine Tool Works Ltd. Japan and Okamoto Machine Tool Europe GmbH, is a customer-oriented, internationally operating company – a modern service provider with high service quality. Our full service strategy focuses on the customer and their needs. Our aim is to provide our customers with top quality innovative products that offer the highest precision, a high degree of reliability, and easy operation. In our modern demonstration and application centre at Okamoto Machine Tool Europe GmbH in Langen, Germany, we are ready to demonstrate a wide selection of the products in our delivery programme.

We put great emphasis on a long-term, reliable, successful, trusting and fair cooperation with our customers and partners.

What you can expect from us in detail:

- User-specific advice from professionals
- Improving the profitability of your production
- Efficient solutions that lead to competitive advantages



WORLD OF OKAMOTO



Internationality

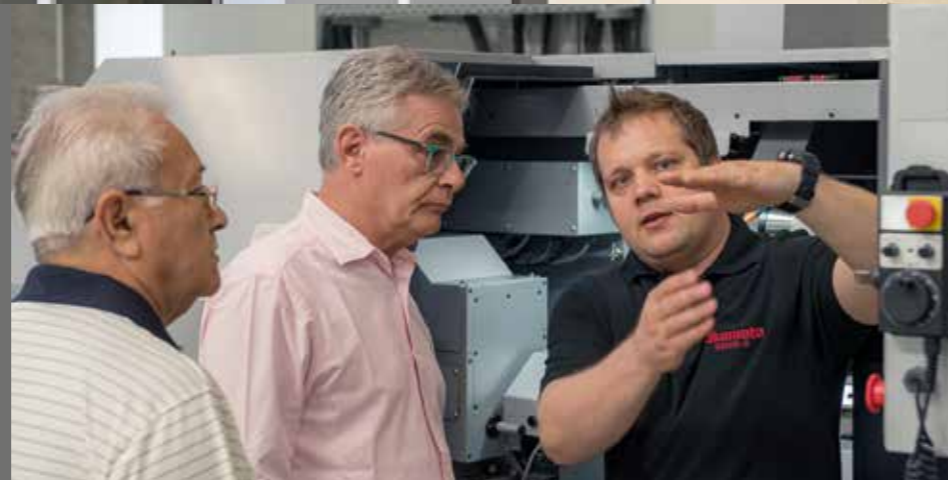
Worldwide security and competence.

Our grinding machines set international standards.

Based in the centre of Europe, Okamoto Machine Tool Europe GmbH employs staff from several different European countries as well as Germany and Japan. Together with our partners and dealers in each European country, we are able to understand the cultural and application-specific characteristics of all of our customer's needs. Because you know that we speak your language, and because you know that we understand your local market, you can be sure that you will save time and money when buying an Okamoto machine. Okamoto Europe and our partners provide a noticeable competitive advantage. With us you can feel "at home".

What you can expect from us in detail:

- A single contact partner
- Excellent knowledge of the foreign market
- Cultural experience



WORLD OF OKAMOTO



Quality

Long Life through Top Quality.

Guarantees for the safety of your production.

1. Uncompromising competence

Any company that makes so many machines per year and which offers such a wide range of grinding machines, must be able to master each production step precisely. Okamoto has 4 different factories in and around Japan, and these factories share production seamlessly. All castings are made by Okamoto Thailand. Medium sized machined parts are made by Okamoto Singapore. Our largest and most sophisticated machines are made by Okamoto Japan. All Okamoto factories share the assembly of different machine ranges. The quality of Okamoto machines is overseen from casting to the end product. All Okamoto facilities follow the guidelines of DIN EN ISO 9001:2008. The perfect interaction between motivated and competent employees is not only what makes our company stand out, but also an existential component of our company philosophy.

2. Certification and additional checks

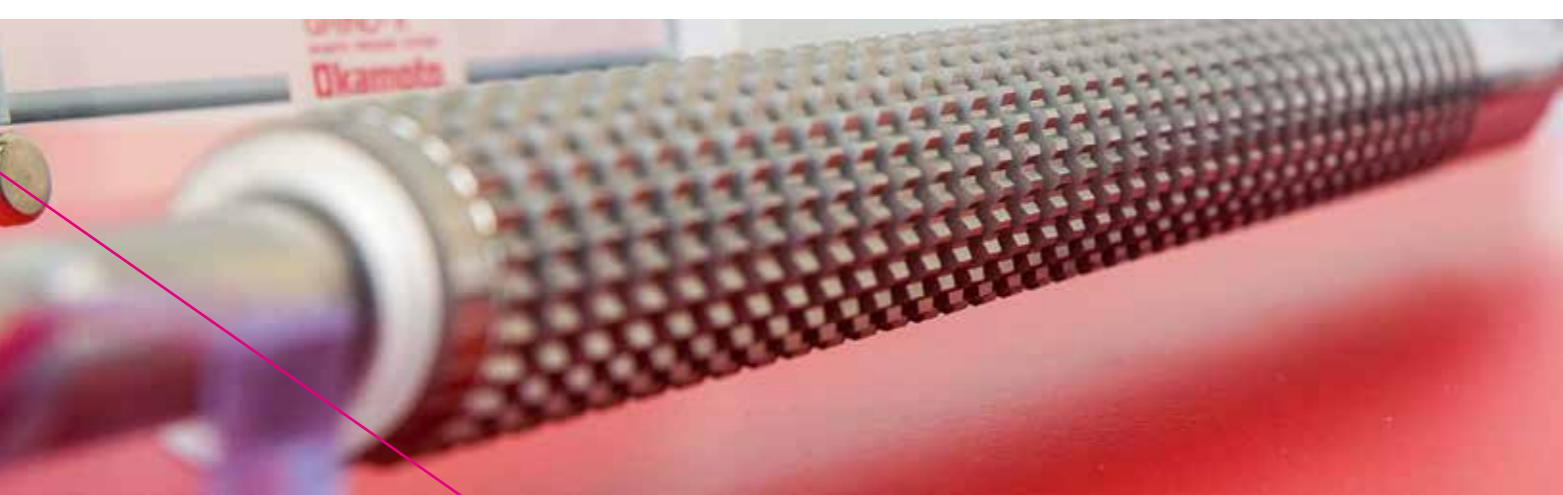
The quality management is certified according to DIN EN ISO 9001:TS 16949 and meets all international standards. Moreover, we carry out additional extensive checks in order to guarantee to our customers the utmost quality. Likewise, tool test certificates according to DIN 50049 are naturally provided by our company.

3. Documentation

We continuously document our quality control, not only in order to secure quality, but also to further optimise it. Because the same goes for us: anyone who stops getting better, has stopped being good.

What you can expect from us in detail:

- Constant overwatch by TÜV
- DIN EN ISO 9001:TS 16949
- DIN 50049
- Product manufacturing documentation



Cylindrical Grinding Machine



UGM 5V

Precision vertical universal cylindrical grinding machine with B axis

With the introduction of this new universal series of vertical and internal grinding machines, Okamoto combines its extensive know-how in the field of internal and external grinding in an entirely new design.

- CNC universal vertical grinding machine
- Automatic Tool Changer for 4 wheels
- Pivoting wheel head (B axis)
- Roundness 0.9 μm



ADDITIONAL EQUIPMENT

- 3-jaw chuck 500mm diameter manual
- Wheel mounts / holder with clamping cone BT40
- Coolant system with paper belt filter SBF 60
- Coolant system with magnet separator and temperature controller

UGM 5V

	Description	Unit	UGM 5V
Capacity	Swing on the table	mm	Ø 550
	Grinding inner diameter	mm	Ø 75-400
	Grinding outer diameter	mm	to Ø 550
	Maximum grinding length	mm	300
	Maximum load (on table)	kg	500
Wheel spindle	Specifications of wheel used	mm	Ø 200 x 40 x 50.8 Ø 50-100 x 50 x 22.5
	Revolution speed	min ⁻¹	500-8000
	Maximum circumferential speed	m/sec	50
	Taper hole		BT40 two-face contact (without drive key)
Wheel spindle infeed (X-axis)	X-axis maximum travel amount	mm	1100
	Minimum setting unit	mm	Ø 0.0001
	Grinding feed rate	mm/min	0.001 - 20000
	Rapid feed rate (manual, automatic)	mm/min	20000
Longitudinal wheel feed (Z-axis)	Z-axis maximum travel amount	mm	450
	Minimum setting unit	mm	0.0001
	Grinding feed rate	mm/min	0.001 - 15000
	Rapid feed rate (manual, automatic)	mm/min	15000
Wheel head (B-axis)	B-axis maximum swivel angle	Degree	0 or 30
	Table size	mm	Ø 500
Work spindle	Revolution speed	min ⁻¹	10~150
	T slot	mm	18 x 8s lot
	Hydraulic unit	Discharge pressure	MPa
Tank capacity		L	60
Motor		For wheel spindle (AC built-in motor)	kW
	Work spindle (AC servomotor)	kW	5.5 (αiS40/4000-B)
	Wheel infeed (AC servomotor)	kW	4.5 (αiS22/4000-B)
	Longitudinal wheel feed (AC servomotor)	kW	5.5 (αiS30/4000-B)
	For driving the ATC (AC servomotor)	kW	0.5 (βiS1/6000-B-B)
	Hydraulic pump	kW	5
	For driving the dresser (option)	W / P/min ⁻¹ (Hz)	60/2/2650/3200 (50/60)
	Grinding coolant injection pump (option)	kW/P	1.1/2
	Dressing coolant injection pump (option)	W/P	250/2
	Pump-up pump (option)	W/P	250/2
	Magnetic separator (option)	W/P	25/2
	Automatic liquid temperature controller (option)	W	max. 1160
	Dust collector (option)	W	750
Installation space	Width x Depth x Height	mm	2650 x 2380 X 3032
	Weight	kg	9000
Power supply	Power requirement	V / Hz	200, (three-phase), 50/60 (main unit)
	Power consumption	kVA (main unit)	45
Air pressure requirement	Pressure requirement	MPa	0.5
	Flow rate requirement	L/min	160 (during air blow 420)
Noise level		dB	70-75

Cylindrical Grinding Machine



UGM 360 NC

Precision cylindrical grinding machine with B-axis

Standard software with 10-step grinding program. Software for profile grinding optionally available. Entry of grinding data via touchscreen. Wheel and work spindles driven by Fanuc AC servomotors. A swing down wheel dressing device for internal grinding is included in the standard equipment.

- Double V table slideways
- T-shaped machine bed
- Temperature-stabilized spindles
- Low-maintenance B-axis motor with direct drive
- Directly powered ball screws



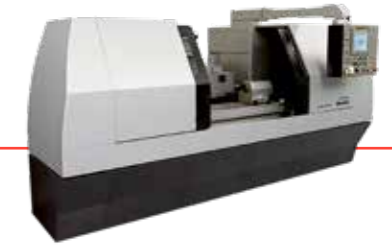
ADDITIONAL EQUIPMENT

- Motor-powered tailstock
- Roll dresser
- Gap Elimination
- Programming software iCAM / EDELAC Win

UGM 360 NC

	Description	Unit	UGM 360 NC	UGM 3100 NC
Workhead	Spindle type		High-strength combined live & dead spindle	
	Centre taper	MT	5	
	Through bore	mm	Ø 28	
	Spindle speed	min ⁻¹	10 ~ 500	
	Swivel angle	Degree	90	
	Swivel angle operator side	Degree	30	
Tailstock	Tailstock sleeve		Taper control type	
	Sleeve stroke	mm	30	
	Taper	MT	4	
Motors	Wheel spindle (AC motor)	kW	11.0/4 (Direct drive)	
	Internal grinding spindle (AC motor)	kW	3.7	
	Workhead Spindle (C-axis/AC motor)	kW	1.8 (iS12/3000HV)	
	Table feed (Z-axis/AC motor)	kW	4.5 (aiS/4000HV)	
	Wheelhead infeed (X-axis / AC servo motor)	kW	3.0 (aiF12/4000HV)	
	Wheelhead swivel Motor (B-axis / AC servo motor)	kW	5.6 (Direct drive: DiS250/250)	
	Lubricant pump	W/P	3/4	
	Oil temperature controller	W	2800	
	Oil temperature controller pump	W	400/1500W(O.P)	
	Grinding wheel	Size (Outside - Ø x B x Inside - Ø)	mm	Ø 510 x 63 (ØP80) x Ø 203.2
Rotational speed min.		min ⁻¹	900~3200	
Max. peripheral wheel speed		m/sec	60	
Feed axis (X-axis)	X-axis stroke	mm	360	
	Min. input increment	mm	0.0001	
	Rapid traverse	mm/min	10000	
Swivel Axis (B-axis)	Swivel angle	Degree	2 Spindle (+0~-180°), 3 Spindle (+0~-240°)	
	Min. input increment	mm	0.0001	
	Rapid traverse	min ⁻¹	15	
Table (Z-axis)	Z-axis stroke	mm	850	1250
	Swivel angle	Degree	0 ~8.5	0 ~6.0
	Min. input increment	mm	0.0001	
	Rapid traverse	mm/min	20000	
Power consumption		kVA	33	36
Tank capacity	Lubricant	L	3	
	Coolant	L	80	
Control	Type		FANUC Oi-TF	
	Number of controlled axes		3 (2-axis simultaneously)	
	Coordinates		Polar, Linear, Arc	
Work height	High floor - Centre workpiece	mm	1135	
Space requirement	Width x Depth x Height	mm	2780 x 2750 x 1900	3650 x 2750 x 1900
Total weight net		kg	7000	7900

Cylindrical Grinding Machine

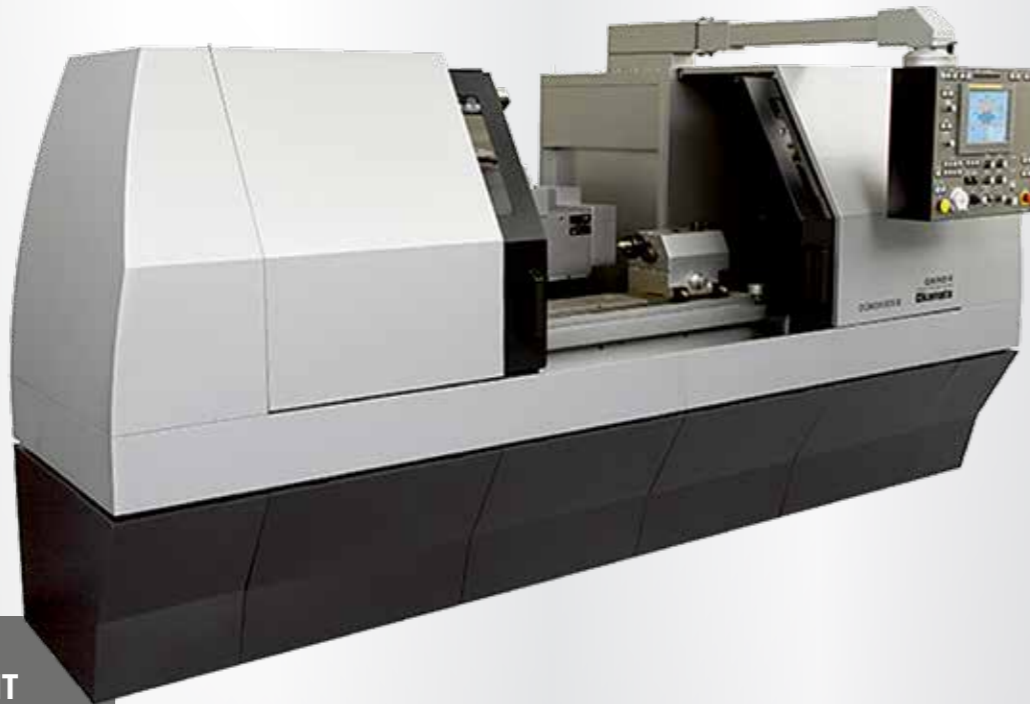


OGM 350 NCIII / UNCIII

Precision cylindrical grinding machine

Standard software with 10-step grinding program. Software for profile grinding optionally available. Entry of grinding data via touchscreen. Wheel and work spindles driven by Fanuc AC servomotors. Shoulder locator and gap eliminator are included in the standard equipment.

- External / universal cylindrical grinding machine
- FANUC touchscreen control featuring easy to use software
- Sizes from 500 mm to 1500 mm between centres



ADDITIONAL EQUIPMENT

- Self centring 3-jaw chuck with adaptor Ø 200 mm
- Paper filter coolant system with 120 litre tank
- Work light LED

OGM 350 NCIII / UNCIII

	Description	Unit	Series 200		Series 300					
			External	universal	External			universal		
			250	250	350	390	3150	350	390	3150
Capacity	Swing over table	mm	220	220	320	320	320	320	320	320
	Centre distance	mm	500	500	500	900	1500	500	900	1500
	Max. grinding diameter	mm	200	200	300	300	300	300	300	300
	Max. weight	Between centres	kg	50	50	150	150	150	150	150
Chuck (face plate + chuck + load)		kg	20	20	40	40	40	40	40	40
Grinding wheel	Size (Outside - Ø x B x Inside - Ø)	mm	Ø 355 x 38 x Ø 127	Ø 305 x 25 x Ø 127	Ø 455 x 50 x Ø 127			Ø 405 x 38 x Ø 127		
	Rotational speed	min ⁻¹	1610/1780/1980	1880/2110/2210	1570/1742			1767/1996		
	Max. peripheral wheel speed	m/sec	45	45	45	45	45	45	45	45
Wheelhead	Stroke	mm	215	215	300	300	300	300	300	300
	Swivel angle degree	Degree	Fixed	±30	Fixed			±30		
	Min. Increment	mm	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Rapid traverse	m/min	4	4	4	4	4	4	4	4
Table	Stroke	mm	762	762	870	1270	1870	870	1270	1870
	Swivel angle	Degree	0 -- 9	0 -- 9	0 -- 10	0 -- 8.5	0 -- 5	0 -- 10	0 -- 8.5	0 -- 5
	Min. Increment	mm	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Rapid traverse	m/min	8	8	10	10	10	10	10	10
Workhead	Spindle type		High-strength combined live & dead spindle							
	Centre taper	MT	Nr. 3	Nr. 3	Nr. 4	Nr. 4	Nr. 4	Nr. 4	Nr. 4	Nr. 4
	Through bore	mm	Ø 18	Ø 18	Ø 20	Ø 20	Ø 20	Ø 20	Ø 20	Ø 20
	Spindle speed	min ⁻¹	10 - 500	10 - 500	10 - 500	10 - 500	10 - 500	10 - 500	10 - 500	10 - 500
	Swivel angle	Degree	30 ~ -90		Fixed			30 ~ -90		
Tailstock	Tailstock sleeve		Taper control type							
	Sleeve stroke	mm	20	20	30	30	30	30	30	30
	Taper	MT	Nr. 3	Nr. 3	Nr. 4	Nr. 4	Nr. 4	Nr. 4	Nr. 4	Nr. 4
Motors	Wheel spindle	kW	3.7		5.5 (opt. 7.5)					
	Workhead	kW	1,8 (AC servomotor)							
	Table feed	kW	1,2 (AC servomotor)							
	Wheelhead infeed	kW	1,2 (AC servomotor)							
	Lubricant pump	W	3							
	Coolant pump	W/P	180/2	180/2	180/2	180/2	180/2	180/2	180/2	180/2
Required power consumption		kVA	15	15	20	20	20	20	20	20
Height floor - Centre workpiece		mm	980	980	1000	1000	1000	1000	1000	1000
Total weight net		kg	3300	3300	4600	5000	6000	4600	5200	6000
			Series EX III				Series NC III			
			250	350	390	3150	250	350	390	3150
Space requirement	Width	mm	2920	3400	4200	5600	2920	3400	4200	5600
	Depth	mm	2010	2330	2330	2330	2010	2330	2330	2330
	Height	mm	1950	1950	1950	1950	1950	1950	1950	1950

Cylindrical Grinding Machine



IGM 15 NCIII / NCIII-2

Internal grinding machine with single or twin spindles

Standard software with 10-step grinding program Software for plain bore, taper and contour grinding with 2-axis control. Entry of grinding data via touchscreen with easy to use software. Wheel and workhead spindles are driven by AC servomotors. High precision is further optimized via thermally stabilized infeed ball screw.

- Internal cylindrical grinding machine for bore lengths up to 150 mm
- FANUC touchscreen with easy to use software input
- Single spindle or Twin spindle model with high frequency motor-driven spindles



ADDITIONAL EQUIPMENT

- 3-jaw chuck
- Selection of internal spindles with quill
- Coolant system with paper belt filter
- Coolant system with magnetic separator and temperature controller

IGM 15 NCIII / NCIII-2

	Description	Unit	IGM15NCIII	IGM15NCIII-2
Capacity	Swing on the table	mm	Ø 600	
	Swing under the chuck cover	mm	Ø 260	
	Maximum grinding inner diameter	mm	Ø 6 to 150	Ø 6 to 100
	Maximum grinding length	mm	125	
Wheel spindle infeed (X-axis)	X-axis maximum travel amount (infeed)	mm	170	300
	Minimum setting unit	mm	Ø 0.0001	
	Grinding feed rate	mm/min	0.001 - 10 000	
	Rapid feed rate (manual, automatic)	mm/min	10 000	
Table longitudinal feed (Z-axis)	Z-axis maximum travel amount	mm	500	
	Minimum setting unit	mm	0.0001	
	Grinding feed rate	mm/min	0.001 to 15 000	
	Rapid feed rate (manual, automatic)	mm/min	15 000	
Work head	Work spindle top outer diameter	mm	Ø 140 g7	
	Work spindle tapered hole		Morse taper No. 6	
	Through-hole diameter	mm	Ø 50	
	Revolution speed	min ⁻¹	100 to 850	
	Swivel angle		-5° to 15°	
Motors	Wheel spindle (AC spindle motor)		Bil3/10 000	2.2 - 5.5 kW/2P
	Work spindle (AC servomotor)		B12/3000iS	
	Wheel head feed (AC servomotor)		α C8/2000i	
	Table feed (AC servomotor)		α C8/2000i	
	Coolant injection pump (option)		180W/2P	
	Pump-up pump (option)		180W/2P	
	Automatic liquid temperature controller (option)		1740W (50Hz)/2P	
	Dust collector (option)		400W	
Power supply	Power requirement		200V, three-phase, 50/60 Hz (main unit)	
	Power consumption		8 kVA (main unit)	12 kVA (main unit)
Space requirement	Width	mm	2525	
	Depth x Height	mm	3092 x 1786	
Total weight net		kg	2600	

Cylindrical Grinding Machine



OGM 250 UDXB

Universal cylindrical grinding machine

A Universal cylindrical grinding machine having a diameter capacity of 200 mm and with 500 mm between centres, the OGM 250 UDXB is ideally suited for toolroom small batch production. It is delivered with a comprehensive level of standard equipment to suit toolroom production and allows quick and easy setup. The stable design of the spindle head together with double-V table slideways provides for a robust machine with long-term precision. The intuitive operation of the controls simplifies usage and increases productivity considerably.

- Proven PLC type Okamoto DX control
- With internal grinding unit in the standard equipment
- AC motor ball screw table drive mounted on a T-shaped cast iron machine bed



ADDITIONAL EQUIPMENT

- Set of 6 Automatic driving dogs 5-80 mm capacity
- Static Balancing unit with arbour
- Table angle measuring system
- Internal grinding unit
- Self-centring chuck
- Manual type 2- and 3-point steady rests

OGM 250 UDXB

	Description	Unit	OGM-250UDXB
Capacity	Max. swing diameter	mm	220
	Max. distance between centres	mm	500
	Max. grinding diameter	mm	200
	Max. workpiece weight (between centres)	kg	60
Grinding wheel	Diameter x Width x bore	mm	Ø 305 x 25 x 127
	Rotational speed	rpm	2087/2357
	Max. peripheral grinding speed	m/sec	33
Grinding spindle head	Infeed stroke	mm	203
	Swivel range		+/- 30°
	Smallest input increment	mm	0,001
	Feed speed	mm/min	1000
	Electronic hand wheel	mm	0.001 / 0.01
	Spark out	sec. strokes	0-10
	Table axis	Stroke	mm
	Swivel range	mm	+4° / -9°
	Smallest input increment	mm	0,001
	Max. table speed	mm/min.	50 - 4000
	Feed per hand wheel rotation	mm	7.5
Workhead	Work Spindle Taper	M.T.	No. 3
	Spindle through bore	mm	14
	Rotational speed	rpm (3 steps)	150/250/400
	Swivel range		+30° / -90°
Tailstock	Sleeve travel	mm	20
	Taper	M.T.	No. 3
Motors	Wheel spindle	kW	1.5
	Workhead	kW	0.4
	Table drive	kW (AC servomotor)	0.4
	Workhead	kW (AC servomotor)	0.4
	Internal grinding unit	kW	0.75
	Power supply	kVA	7
Dimensions	L x W x H	mm	2880 x 1851 x 1640
	Total weight net	kg	1900

Surface & Profile Grinding Machine



UPZ 210 Lill / Lill-2

Ultra Precision surface and profile grinding machine

Weighing in at 5700 kg, the design of this machine offers an excellent low-vibration base for ultra-precision grinding of surfaces and profiles. High-precision linear slideways (optionally with hydrostatic slideways) paired with linear motors in all axes offer ultra high speed and precision. The linear motor table drive achieves an oscillation rate of up to 250 double strokes per minute. Two independently working grinding heads enable roughing and finishing operations to be carried out concurrently.

In combination with a CCD camera option, this machine is capable of completely automatic cycle including re-grinding with compensation and final part measurement without having to remove the part from the machine, thereby guaranteeing the very highest precision.

- CNC Fast Reciprocation Profile Grinding Machine
- with linear motor drive
- carbide grinding with 520 oscillation strokes per minute
- Roughing and finish grinding, measuring, compensating independently one after the other



ADDITIONAL EQUIPMENT

- Coolant system
- Mist collector
- Temperature stabilization
- Cleaning cycle during measurement

UPZ 210 Lill / Lill-2

	Description	Unit	UPZ 210 Lill	UPZ 210 Lill-2
Work area	Table clamping surface	mm	200 x 110	200 x 105
	Table path (L x W)	mm	270 x 120	500 x 120
	Max. distance wheel to table	mm	235 (Ø 80 mm)	225 (Ø 80 mm)
	Max. load incl. chuck	kg	5	5
	Magnetic Chuck Size (L x W x H)	mm	175 x 105 x 49	175 x 105 x 49
Table	Speed	mm/min	0,1 - 60	0,1 - 60
	Rapid traverse	mm/min	1000	1000
Cross movement	Speed	mm/min	1 - 1000	
	Smallest input increment	mm	0.0001	0.0001
	Rapid traverse	mm/min	1000	1000
Vertical movement	Speed	mm/min	1 - 1000	
	Smallest input increment	mm	0.0001	0.0001
	Rapid traverse	mm/min	1000	1000
Motors	Wheel spindle motor	kW	2,2	1,5
	Table oscillation (linear motor)	kW	2,0 x 2	2,0 x 2
	Cross movement	kW	2,0 (linear motor)	2,0 (linear motor)
	Vertical movement	kW	2,0	2,0
	Coolant pump (optional)	kW	0,06	0,06
	Coolant temperature control	kW	1,6	1,6
	Oil temperature control	kW	1,6	1,6
Power consumption (incl. chuck and coolant system)		kVA	21	31
Space requirement	Dimensions (L x W x H)	mm	1750 x 1850 x 1880	1883 x 2694 x 1907
	Total weight net	kg	6000	4600

Surface & Profile Grinding Machine



UPZ 52 Li

Ultra Precision surface and profile grinding machine

With a grinding length of 500 mm and a cross travel of 200 mm the Okamoto UPZ-52Li is equally suited to the toolroom, small or large batch production. It features a high level of standard equipment to ensure easy handling, quick and precise small part production. The robust cast iron construction and linear guideways in both table and crossfeed provide for fast and accurate grinding. The intuitive operation of the controls simplifies usage and increases productivity considerably.

- Linear motor table drive
- Workpiece measurement system
- CCD camera
- High-speed reciprocation (500/min)
- Temperature-stabilized grinding wheel spindle head



ADDITIONAL EQUIPMENT

- Elektro-permanent magnetic chuck 500 mm x 200 mm
- Paper band filter coolant system
- Mist collector
- 2-point rotary dresser
- Measuring system incl. CCD camera and software

UPZ 52 Li

	Description	Unit	UPZ 52Li	
Work area	Work table size	mm	550 × 220	
	Table traverse path	mm	600	
	Max. distance Table to Wheel	mm	12.5 ~ 395	
	Magnetic chuck size (Length x Width x Height)	mm	500 × 200 × 80	
	Max. table load	kg	60 (41)	
Table	Feed	m/min	Feed 0.1 ~ 25 (average)	
	Max. traverse path	mm	600	
	Rapid traverse	mm/min	5000	
	Smallest input unit	mm	0.0001	
	Hand feed	Graduation	mm	0.0001 / 0.001 / 0.01 / 0.05
		Wheel speed	mm	0.1 / 0.1 / 1.0 / 5.0
Cross movement	Feed	m/min	1 ~ 2000	
	Max. stroke	mm	230	
	Rapid	mm/min	2000	
	Smallest input unit	mm	0.0001	
	Hand feed	Graduation	mm	0.0001 / 0.001 / 0.01 / 0.05
		Wheel speed	mm	0.01 / 0.1 / 1.0 / 5.0
Vertical movement	Feed	m/min	1 ~ 2000	
	Max. stroke	mm	382.5	
	Rapid	mm/min	2000	
	Smallest input unit	mm	0.0001	
	Hand feed	Graduation	mm	0.0001 / 0.001 / 0.01
		Wheel speed	mm	0.01 / 0.1 / 1.0
Grinding wheel	Grinding wheel size	mm	∅ 205 × 13 × ∅ 31.75	
	Speed	min ⁻¹	0 ~ 3600	
Motors	Grinding wheel spindle	kW	3.7/2 Liquid cool. motor	
	Vertical movement	kW	1.3	
	Cross movement	kW	0.85	
	Table feed	kW	3.0 × 2	
Power	Power consumption	kVA	25.5 (varies according to specification)	
Space requirement	L x W x H	mm	2300 × 2340 × 2237	
	Total weight net	kg	4500	

Surface & Profile Grinding Machine



UPZ NC II

NC-controlled surface & profile grinding machine

With a grinding length of 400 - 500 mm and a cross travel of 200 - 250 mm the Okamoto UPC NCII Series is ideally suited for the toolroom. It features a high level of standard equipment to ensure easy handling, quick and precise small part production. The robust cast iron construction and double-V slideways in both table and crossfeed ensure long term precision. The intuitive operation of the controls simplifies usage and increases productivity considerably.

- FANUC Oi control
- „Teach-in process“
- Scale-Feed-Back for the Z axis
- Temperature-stabilized grinding spindle head



ADDITIONAL EQUIPMENT

- Elektro-permanent magnetic chuck
- Paper band filter coolant system
- Precision static balancing unit
- Diamond roll / disk dressing unit
- Temperature stabilized wheelhead

UPZ NC II

	Description	Unit	UPZ 525 NC II
Work area	Work area (L x W) mm	mm	500 x 250
	Table strokes (L x W) mm	mm	650 x 280
	Distance table to new wheel mm	mm	60 - 397,5
Table	Speed	mm/min	0.8 - 25000
	Max. load	kg	200
Cross movement	Rapid traverse	mm/min	1000
	Programmed speed	mm/min	1 - 1000
	Hand wheel division	mm	0.01 / 0.1 / 1
Vertical movement	Rapid traverse	mm/min	1000
	Hand wheel division mm	mm	0.0001/0.001/0.01
Grinding wheel	Dimensions	mm	Ø 225 x 25 x Ø 50.8
	Rotational speed	min ⁻¹	0 - 3600 ⁻¹
Motors	Grinding wheel	kW	3.7
	Hydraulic pump	kW	1.5
	Cross movement	kW	0.3
	Vertical movement	kW	0.4
Space requirement	Dimensions (L x W x H)	mm	3470 x 3164 x 1850
	Total weight net	kg	3500

Surface & Profile Grinding Machine



ACC CA / CAiQ

Precision surface and profile grinding machine

With a grinding length of 600 - 1000 mm and a cross travel of 400 - 600 mm the Okamoto ACC-CA/CAiQ is ideally suited for the toolroom. It features a high level of standard equipment to ensure easy handling, quick and precise small part production. The robust cast iron design and double-V slideways in the table ensure long term precision. The intuitive operation of the controls simplifies usage and increases productivity considerably.

- Surface and profile grinding machine
- Choice of touch screen control or simple PLC controller
- Moving column design
- Magnetic chuck sizes from 600 x 400 to 1000 x 600 mm



ADDITIONAL EQUIPMENT

- Elektro-permanent magnetic chuck
- Hydraulic overhead dresser with compensation
- Coolant system with paper filter

ACC CA / CAiQ

	Description	Unit	CA series					CAiQ series					
			64CA	84CA	104CA	66CA	106CA	64CA-iQ	84CA-iQ	104CA-iQ	66CA-iQ	106CA-iQ	
Work area	Table length x width	mm	605 x 400	805 x 400	1016 x 400	605 x 600	1016 x 600	605 x 400	805 x 400	1016 x 400	605 x 600	1016 x 600	
	Table stroke length x width	mm	800 x 440	1000 x 440	1200 x 440	800 x 652	1200 x 652	800 x 440	1000 x 440	1200 x 440	800 x 652	1200 x 652	
	Maximum distance grinding wheel - table	mm	22.5 - 522.5			-2.5 - 497.5		22.5 - 522.5			-2.5 - 497.5		
	Standard size chuck	kg	600 x 400 x 90	800 x 400 x 90	1000 x 400 x 90	600 x 600 x 90	1000 x 600 x 90	600 x 400 x 85	800 x 400 x 85	1000 x 400 x 85	600 x 600 x 85	1000 x 600 x 85	
	Table load incl. chuck		1000			1500		1000			1500		
	Table height (from floor)		915										
Table	T-slots	mm	-										
	Speed	rpm	3 - 25										
Cross movement	Manual	Feed / rotation	mm	0.1 / 1.0 / 5.0					0.01 / 0.1 / 1.0 / 5.0				
		Division hand wheel		0.001 / 0.01 / 0.05					0.0001/0.001/0,01 / 0,05				
	Automatic	Int. feed	mm	0.5 - 20									
		Cont. feed	mm/min	0 - 2000					0 - 1000				
Vertical movement	Manual	Feed / rotation	mm	0.01 / 0.1 / 1.0									
		Division hand wheel	mm	0.0001 / 0.001 / 0.01									
	Automatic	Roughing	mm	0.0001 - 0.03 (15 steps)					0.001 - 0.03				
		Finishing	mm/min.						0.0001 - 0.01				
	Feed (F command)	mm	-										
	Number of spark-out passes		0 - 5					0 - 99					
	Rapid traverse		0 - 1000										
Grinding wheel	D x Width x d	mm	Ø 355 x 38 x Ø 127		Ø 405 x 50 x Ø 127		Ø 355 x 38 x Ø 127		Ø 405 x 50 x Ø 127				
	Speed (inverter)	R.P.M.	500 - 2500										
Motors	Grinding wheel spindle	kW	7.5										
	Hydraulic pump	kW	2.2 / 4										
	Infeed	kW	1.5										
	Cross movement	kW	0.75										
Power consumption (incl. chuck and coolant system)			13			16		24					
Space requirement	Length	mm	3550	4000	4480	3550	4480	3710	4000	4500	4000	4500	
	Depth	mm	2700	2900	2800	3350	3350	3439	3500	3500	3700	3610	
	Height	mm	2203	2203	2203	2275	2275	2203	2203	2203	2275	2275	
	Total weight net	kg	4950	5500	7000	6300	7300	4950	5500	7000	6300	7500	

Surface & Profile Grinding Machine



ACC CA2 / CA3

Precision surface grinding machine

With a grinding length of 600 - 1000 mm and a cross travel of 400 - 600 mm the Okamoto ACC-CA2/CA3 is ideally suited for the toolroom. It features a high level of standard equipment to ensure easy handling, quick and precise small part production. The robust cast iron construction and double-V table slideways (CA2) ensure long term precision. The intuitive operation of the controls simplifies usage and increases productivity considerably.

- CNC surface & profile grinding machine
- e.g. 3 axes simultaneously
- Column feed for cross movement
- Dialogue input system



ADDITIONAL EQUIPMENT

- Hydraulic oil temperature controller
- Wheel flange
- Balancing unit with arbour
- Electromagnetic chuck
- Coolant systems

ACC CA2 / CA3

		Description	Unit	64 CA2	84 CA2	104 CA2	106 CA2
Work area	Table path	mm	800 x 440	1000 x 440	1200 x 440	1200 x 652	
	Magnetic chuck size	mm	600 x 400	800 x 400	1000 x 400	1000 x 600	
	New wheel to table	mm	-2.5 ~ 497.5				
	Table load	kg	1000				1500
Table	Speed	m/min	3 ~ 25				
Cross movement	Int. movement	mm	0.5 ~ 20				
	Cont. movement	mm/min	0 ~ 2000				
	Hand wheel division.	mm	0.001 / 0.01 / 0.05				
Vertical movement	Rapid	mm/min	1000				
	Hand wheel division.	mm	0.0001 / 0.001 / 0.01				
Grinding wheel	Dimensions (D x B x d)	mm	ø 405 x 50 x ø 127				
	Speed	min ⁻¹	500 ~ 2500 ⁻¹				
Motors	Grinding wheel spindle	kW	7.5				
	Hydraulic pump	kW	2.2				
	Vertical movement	kW	0.75				
Space requirement	L x W x H	mm	3710 x 3300 x 2200	3950 x 3300 x 2200	4500 x 3300 x 2200	4440 x 3650 x 2280	
	Total weight net	kg	4500	5500	7000	7500	

Surface & Profile Grinding Machine



ACC CHNC

Double column surface and profile grinding machine

With a grinding length of 2000 - 4000 mm and a cross travel of 1050 - 2050 mm the Okamoto ACC-CHNC Series is ideally suited for both toolroom and production use. It features a high level of standard equipment to ensure easy handling, quick and precise part production. The robust cast iron construction and double-V table slideways together with gantry cross slide ensure long term precision. The intuitive operation of the controls simplifies usage and increases productivity considerably.

- Double column machine
- Robust construction for the very highest geometry requirements

- Precision surface processing
- Conversation software



ADDITIONAL EQUIPMENT

- Elektro-permanent magnetic chuck
- Paper band filter coolant system
- Overhead dresser with compensation

ACC CHNC

	Description	Unit	1000 Series		1500 Series			2000 Series		
			2010CHNC	3010CHNC	2015CHNC	3015CHNC	4015CHNC	3020CHNC	4020CHNC	
Work area	Table size, length x width	mm	2000 x 1050	3000 x 1050	2000 x 1550	3000 x 1550	4000 x 1550	3000 x 2050	4000 x 2050	
	Max. grinding height	mm	700							
	Clearance width	mm	1300			1800			2500	
Table	Work area	mm	2050 x 1050	3050 x 1050	2050 x 1550	3050 x 1550	4050 x 1550	3050 x 2050	4050 x 2050	
	Max. load	kg	4600	6900	5400	8100	10800	9200	12300	
	Magnet weight	kg	1560	2340	2360	3540	4720	4620	6160	
Longitudinal movement	Max. traverse path	mm	2250	3250	2250	3250	4250	3250	4250	
	Feed	m/min	2-30							
Cross movement	Max. traverse path	mm	1170		1670			2170		
	Rapid traverse	mm/min	5000							
Vertical movement	Max. traverse path	mm	740							
	Rapid traverse	mm/min	1500							
Grinding wheel	Grinding wheel size (opt.)	mm	Ø 510 (option: Ø 610) x 100 x Ø 203.2					Ø 610 x 100 x Ø 203.2		
	Speed (opt.)	min ⁻¹	980 (option: 850)							
	Grinding wheel motor (opt.)	kW	15 (option: 22)							
Space requirement	Length	mm	7300	8650	7300	8650	10950	8650	11310	
	Width	mm	4100	4100	4600	4600	4600	4800	6833	
	Height	mm	4100	4100	4100	4100	4100	4100	4100	
	Total weight net	kg	18500	21000	21500	24500	28000	35000	40000	

Surface & Profile Grinding Machine



ACC CHI Q

Precision double column machine

The ACC-CHI Q series meets the very highest requirements in terms of precision to be found in the manufacture for parts in tool and mould construction, in hot runner technology and punching die construction. The cross slideways can be adjusted mechanically and can be realigned at any time as needed. In doing so, the CNC does not need to be compensated which in turn affords advantages in a higher surface quality and smoothness.

- Double column machine
- PC control with touchscreen
- Simple data input via symbols
- Stable construction for the very highest geometry requirements
- Mechanically adjustable cross slideways



ADDITIONAL EQUIPMENT

- Electro-permanent magnetic chuck
- Paper band filter coolant system
- Overhead dresser with compensation
- Column increase 200mm

ACC CHI Q

		Description	Unit	208CHI Q	258CHI Q	358CHI Q	
Capacity		Chuck working size (Length x Width)	mm	2000 x 800	2500 x 800	3500 x 800	
		Table cross movement	mm	1050			
		Table longitudinal movement	mm	2250	2750	3750	
		Table working cap (Length x Width)	mm	2050 x 850	2550 x 850	3550 x 850	
		Maximum weight of table (Including chuck)	kg	3200 (1390)	3900 (1690)	5500 (2180)	
Longitudinal feed		Chuck size (Length x Width)	mm	2000 x 800	2500 x 800	3500 x 800	
		Longitudinal feed rate	m/min	2-30			
Crossfeed		Max. travel feed	mm	910			
		Minimum increment	mm	0.0001			
		Max. rapid feed	mm/m	6000			
		Automatic feed	Continuous feed rate	mm/min	0-1000		
		Manual feed	Hand feed per revolution	mm	0.01/0.1/1.0		
	Graduation of hand wheel		mm/m	0.0001/0.001/0.01			
Vertical feed		Max. travel feed	mm	620			
		Minimum increment	mm	0.0001			
		Max. rapid feed	mm/m	2000			
		Automatic feed	Rough grinding	mm	0.0001-0.9999		
			Fine grinding	mm	0.0001-0.9999		
	Hand adjustment	Hand feed per revolution	mm	0.01/0.1/1.0			
		Graduation of hand wheel	mm/m	0.0001/0.001/0.01			
Grinding wheel		Size (OD x W x ID)	mm	Ø 510 x 100 x Ø 127 (Option: 610 x 50 x 127)			
		Spindle speed	mm ⁻¹	400-1600			
		Motor	kW/P	22/4			
Oil pressure unit		Capacity	L	300			
Machine space		Length x Width x Height	mm	6570 x 3850 x 3550	7750 x 3850 x 3550	10200 x 3850 x 3550	
Machine weight		Standard	kg	15500	17000	20000	

Surface & Profile Grinding Machine



ACC GX

Precision surface grinding machine

With a grinding length of 500 - 1000 mm and a cross travel of 200 - 500 mm the Okamoto GX Series is ideally suited for the toolroom. It features a high level of standard equipment to ensure easy handling, quick and precise small part production. The robust cast iron construction and double-V slideways in both table and crossfeed ensure long term precision.

- Hydraulic surface grinder with automatic feed
- Moving saddle design
- Double-V slideways longitudinal and cross
- PLC controller with proven reliability



OPTIONAL EQUIPMENT

- Electro-permanent magnetic chuck
- Wheel head mounted Hydraulic dresser
- Paper band filter with coolant system
- Cross-feed digital readout
- Spindle speed inverter

ACC GX

Description		Unit	52 GX	63 GX	64 GX	65 GX	84 GX	105 GX	
Table	Machine table (length x width)	mm	550 x 200	650 x 300	650 x 400	650 x 500	850 x 400	1016 x 500	
	Max. distance table > wheel	205 mm grinding wheel	mm	47.5 ~ 397.5	-	-	-	-	
		305 mm grinding wheel	mm	-	22.5 ~ 322.5	22.5 ~ 322.5	22.5 ~ 522.5	22.5 ~ 522.5	
		355 mm grinding wheel	mm	-	22.5 ~ 347.5	47.5 ~ 347.5	47.5 ~ 547.5	47.5 ~ 547.5	
	Standard size of magnetic chuck (L x W x H)	mm	500 x 200 x 90	600 x 300 x 90	600 x 400 x 90	600 x 500 x 90	800 x 400 x 90	1000 x 500 x 90	
	Max. table load (incl. magnt.)	kg	200	420	420	700	700	700	
T-slots (W x width)	mm	17 x 1	17 x 3						
Longitudinal feed	Max. traverse path	mm	650	750	750	750	950	1150	
	Speed	m/min	0.3 ~ 25	0.3 ~ 25	0.3 ~ 25	0.3 ~ 25	0.3 ~ 25	0.3 ~ 25	
	Manual feed/rotation	mm	47						
Crossfeed	Max. table cross traverse	mm	230	340	440	540	440	540	
	Manual cross feed	per rotation of hand wheel	mm	5.0					
		per division	mm	0.02					
	Autom. cross movement	step-wise	mm	0.5 ~ 12	0.5 ~ 20	0.5 ~ 20	0.5 ~ 20	0.5 ~ 20	0.5 ~ 20
		continuous	m/min	0.1 ~ 1.0	0.1 ~ 1.0	0.1 ~ 1.0	0.1 ~ 1.0	0.1 ~ 1.0	0.1 ~ 1.0
Vertical feed	Automatic feed	mm	0.0001 ~ 0.03						
	Manual feed	per rotation of hand wheel 0.1x1x10x	mm	0.0001 / 0.001 / 0.01					
		per impulse 0.1x1x10x	mm	0.01 / 0.1 / 1.0					
	Sparkout	Nr.	0 ~ 5						
	Vertical fast positioning	mm/min	600						
Grinding wheel	ø x width x bore	mm	ø 205 x 19 x ø 50.8	ø 355 x 38 x ø 127					
	Speed	min ⁻¹	3000	1500					
Motors	Wheel spindle	kW/P	1.5 / 2	3.7 / 4					
	Hydraulic pump	kW/P	0.75/4	1.5/4	1.5 / 4	2.2 / 4			
	Vertical movement	kW	0.4 (AC Servomotor)						
Power supply	Connection value	kVA	4.5	7.5	8.0				
Space requirement	Length x Width x Height	mm	3030x1593x1800	3350x1929x1800	3350x2180x1800	3350x2450x2060	4220x2205x2060	4870x2264x2060	
Total weight net		kg	2100	2800	3000	3500	3900	4800	

Surface & Profile Grinding Machine



ACC SA

Precision surface grinding machine

With a grinding length of 500 - 600 mm and a cross travel of 200 - 300 mm the Okamoto SA Series is ideally suited for the toolroom. It features a high level of standard equipment to ensure easy handling, quick and precise small part production. The rigid cast iron design and double-V slideways in both table and crossfeed ensure long term precision. The intuitive operation of the controls simplifies usage and increases productivity considerably.

- Reinforced machine design
- Automatic grinding cycles
- Double-V table and cross slideways
- Table dresser option



ADDITIONAL EQUIPMENT

- Elektro-permanent magnetic chuck
500 mm x 200 mm / 600 mm x 300 mm
- Coolant system with paper filter
- Temperature stabilized wheelhead
- Fully automated balancing system
- Wheel flange

ACC SA

	Description	Unit	ACC 52 SA	ACC 63 SA
Work area	Table stroke	mm	650 x 230	750 x 340
	Magnetic chuck size	mm	500 x 200	600 x 300
	Table -> new wheel	mm	47,5 ~ 397,5	22,5 ~ 322,5
	Load	kg	200	420
Table	T-slots	mm	17 x 1	17 x 3
	Speed	m/min	0,3 ~ 25	
Cross movement	Incr. movement	mm	0,5 ~ 12	0,5 ~ 20
	Cont. movement	mm/min	0 ~ 1000	
	Rapid	mm	1000	
	Hand wheel division	mm	0,001 / 0,01 / 0,05	
Vertical movement	Feed	µm	0,5 ~ 30	
	Rapid	mm/min	1000	
	Hand wheel division	mm	0,0001 / 0,001 / 0,01	
	Spark-out passes		0 ~ 5	
Grinding wheel	Dimensions (D x W x d)	mm	∅ 205 x 19 x ∅ 50,8	∅ 355 x 38 x ∅ 127
	Speed	min ⁻¹	3000	1500
Motors	Wheel spindle	kW	1,5	3,7
	Hydraulic pump	kW	0,75	1,5
	Vertical movement	kW	0,55 kW	
Space requirement	Dimensions (L x W x H)	mm	3030 x 1784 x 2276	3350 x 1987 x 2313
	Total weight net	kg	2100	2900

Surface & Profile Grinding Machine



ACC SA1

Next Generation

Standard surface grinder series equipped with a newly developed user friendly controller

- Best step up from the ever popular Okamoto ACC-DX Series
- Crossfeed setting by Teach-In
- Compact footprint design
- New control with LCD touch screen allows for easy monitoring of the machine functions and grind process
- Auto dress with compensation is standard
- Spindle inverter unit is standard
- Auto-retract function is standard



ADDITIONAL EQUIPMENT

- Elektro-permanent magnetic chuck with chuck controller
- Paper band filter coolant system
- Temperature stabilized wheelhead
- Wheel balancing systems
- Wheel flange

ACC SA1

Description		Unit	52SA1	63SA1	64SA1	65SA1	84SA1	105SA1	
Capacity	Table Working Capacity	mm	505×200	605×300	605×400	610×500	805×400	1016×500	
	Max. Table Travel	mm	650×230	750×340	750×440	750×540	950×440	1150×540	
	Distance under new wheel to table top	mm	47.5~397.5	22.5~322.5	22.5~322.5	22.5~522.5	22.5~522.5	22.5~522.5	
	Standard chuck size	mm	500×200×75	600×300×75	600×400×85	600×500×100	800×400×85	1000×500×100	
	Table Load capacity (include chuck)	kg	200	420		700			
Longitudinal Feed (X axis)	T-Slot (Width x No.)	—	—						
	Longitudinal Feed Rate (Average)	m/min	0.3~25						
Vertical Feed (Y-AXIS)	Manual Feed	Hand Feed per Revolution	mm 0.01/0.1/1.0						
		Graduation of Hand Feed	mm 0.0001/0.001/0.01						
	Automatic Feed Rate (Plunge & Traverse)	Coarse Grinding	mm 0.0001~0.03						
		Fine Grinding	mm 0.0001~0.03						
	No. of Spark-out	No.	0~10						
Vertical Rapid Feed	mm/min	1~600							
Cross Feed (Z axis)	Manual Feed Rate	Hand Feed per Revolution	mm 0.1/1.0/5.0						
		Graduation of Hand Feed	mm 0.001/0.01/0.05						
	Automatic Feed Rate	Intermittent Feed	mm	0.5~15	0.5~20	0.5~20	0.5~20	0.5~20	0.5~20
		Continuous Feed Rate	mm/min	0.1~1000					
Grinding Wheel	Diameter x Width x Bore	mm	∅ 205×19× ∅ 50.8		∅ 355×38× ∅ 127				
	Speed	min ⁻¹	1000~3600	200~2500	200~2500	200~2500	200~2500	200~2500	
Motors	Grinding Wheel Spindle	kW/P	2.2/2		3.7/4				
	Hydraulic Oil Pump	kW/P	0.75/2		1.5		2.2		
	Vertical Feed	kW	0.4		0.4				
	Cross Feed	kW	0.75						
Power Supply		KVA	8		11		14		
Floor Space	Width x Depth x Height	mm	2430×2000×1850	2740×2250×1850	2740×2450×1850	2740×2600×2120	3330×2450×2120	4330×2600×2120	
Weight	Net Weight	Kg	2100	2800	3000	3500	3900	4600	

Surface & Profile Grinding Machine



ACC SAIQ

ACC 42 SAIQ

ACC SAIQ

New model series of medium size surfacegrinding machines

- Better operability and repeatable accuracy are considered as the most important factor.



INCREASED FUNCTIONS

- Electro permanent magnet 400 x 200 mm
- Coolant system with paper filter
- ISO software, profile creation software
- Okamoto-I-CAM, CAD/CAM software

	Description	Unit	ACC 42 SAIQ	
Capacity	Table working cap. (length x width)	mm	530 x 200	
	Maximum travel (manual : longitudinal x cross)	mm	530 x 200	
	Distance new wheel – table	mm	22,5 - 357,5	
	Standard magnetic chuck size	mm	400 x 200 x 70	
	Table load capacity (incl. chuck weight)	kg	120	
Table	T-slots (width x No)	mm	17 x 1	
	Hydraulic feed rate (Li : linear motor)	m/min	0,1 - 20	
Crossfeed	Manual cross feed	Hand feed per revolution	mm	0,01 / 0,1 / 1,0
		Graduation of handwheel	mm	0,0001 / 0,001 / 0,01
	Automatic cross feed	Intermittent feed	mm	0,5 - 12
		Continuous feed	mm/min	0,1 - 1000
Wheel head	Manual pulse feed	Hand feed per revolution	µm	0,01 / 0,1 / 5,0
		Graduation of handwheel	mm	0,0001 / 0,001 / 0,05
	Automatic downfeed (traverse & plunge)	Rough grinding	mm	0,001 - 0,03 (15 steps)
		Fine grinding	mm	0,0001 - 0,01 (11 steps)
	Feedrate (F-Command)	mm	0 - 2000	
	No. of sparkout	Anzahl	0 - 99	
	Rapid feed rate	mm/min	0 - 1000	
Grinding wheel	Size OD x W x ID	mm	ø 205 x 6 - 25 x ø 31,75	
	Speed (Invertor)	min ⁻¹	1000 - 3600	
Motors	Grinding wheel spindle (reverse-ventilation)	kW/P	2,2 / 2	
	Hydraulic pump	kW/P	0,75 / 4	
	Vertical feed (AC servo)	kW	0,75	
	Cross feed (AC servo)	kW	0,75	
Destred power supply	including electro mag & coolant system	kVA	14	
Floor space	L x W x H	mm	2470 x 2900 x 2093	
Net weight		kg	2100	

Surface & Profile Grinding Machine



ACC 818 NC

Endless challenge to Zero

Simply the best CNC profile grinding machine developed from our long experience in the grinding machine market. The advantages are manifold: Compact Moving Saddle Design, Fanuc CNC Control with dialogue software, 1/10 Micron AC Servo Motors, Fully Automatic Grind Cycle, automatic profile wheel dressing with Compensation, for the purpose of long lifetime and maintenance free operation, oil lubrication with automatic lubrication is applied to the guide and slide way, combination of both scraped V-V slide way and low friction Turcite assure accurate grinding for life, all castings exhibit high static and dynamic stiffness and excellent damping qualities.

- Grinding wheel (205 x 13 x 31.75 mm)
- Grinding wheel adaptor for wheels
- Levelling screws and plates
- Necessary Tools
- Worklight



ADDITIONAL EQUIPMENT

- Coolant System
- Grinding wheel balancer
- Magnetic chuck
- Spare wheel adaptor

ACC 818 NC

	Description	Unit	ACC 818 NC
Capacity	Table Area (ground)	mm	500 x 200
	Table Movements (longitudinal/cross)	mm	530 x 230
	Max. grinding height between table and new wheel (Ø 205)	mm	302.5
	Standard magnetic chuck	mm	450 x 200
	Table load capacity approx.	kg	120 (incl. Chuck) 1 x 17
Table	T Slots	(No. x W)	1 x 17
	Max Table feed, hydraulic, continuously adjustable, m/min	m/min	1. ~ 20
Cross Feed	Intermittent feed	mm	0.4 – 8
	Continuous feed	mm/min	0-2000
	Electronic hand wheel graduations	µm	0.1 / 1 / 10 / 50
Down Feed	Automatic Down Feed	mm	0.0001 - 0.030
	Electronic hand wheel graduations	µm	0.1 / 1 / 10
	Rapid Positioning	mm/min	2000
Grinding wheel	Grinding Wheel - OD x width x bore	mm	205 x 6-25 x 31.75
	Rotational speed	rpm	100 - 3600
Motors	Grinding spindle	kW	2.2
	Hydraulic Pump	kW	0.75
	Vertical Feed (AC Servomotor)	kW	0.5
	Cross feed	kW	0.5
Power Supply	Operating voltage/frequency	v/Hz	400 / 50
	Connected load, approx.	kVA	15
Space requirement	Length x Depth x Height, approx.	mm	2270 x 2780 x 2090
Total weight net		kg	2100

Surface & Profile Grinding Machine



ACC 450 AV

Precision surface and profile grinding machine

To avoid effects of heat expansion and vibration, the hydraulic unit is isolated from the main unit. For the purpose of long lifetime and maintenance free operation, oil lubrication with automatic lubrication is applied to the guide and slide way. Combination of both scraped V-V slide way and low friction Turcite assure accurate grinding for life. All castings exhibit high static and dynamic stiffness and excellent damping qualities.

- Surface and profile grinding machine
- Simple PLC controller



ADDITIONAL EQUIPMENT

- Dust Suction System
- Coolant System
- Grinding wheel balancer
- Magnetic chuck
- Overhead Dresser – Manual
- Digital Readout for Crossfeed
- Spare wheel adaptor

ACC 450 AV

	Description	Unit	ACC 450 AV
Capacity	Table Area (ground)	mm	450 x 150
	Table Movements (longitudinal/cross)	mm	530 x 210
	Max. grinding height between table and new wheel (Ø 205)	mm	397.5
	Standard magnetic chuck	mm	450 x 150
	Table load capacity approx.	kg	120 (incl. Chuck)
Table	T Slots	(No. x W)	1x17
	Max Table feed, hydraulic, continuously adjustable, m/min	m/min	1. ~ 20
	Feed / Rev of longitudinal handwheel	mm	100
Cross Feed	Feed / Rev of cross handwheel	mm	5
	Feed / Division of dial	mm	0.02
	Intermittent feed	mm	0.5 – 5
	Continuous feed	m/min	0.1– 0.4
Down Feed	Automatic Down Feed	mm	0.0001 – 0.030
	Manual Micro Feed	mm	0.0001 / 0.001 / 0.01
	Down Feed Handwheel Rev	mm	0.01 / 0.1 / 1
	Spark out	No.	0 – 5
	Rapid Positioning	mm/min	600
Grinding wheel	Grinding Wheel - OD x width x bore	mm	205 x 6-19 x 31.75
	Rotational speed	rpm	3000
Motors	Grinding spindle	kW	1.5
	Hydraulic Pump	kW	0.75
	Vertical Feed (AC Servomotor)	kW	0.4
	Cross feed	kW	0.2
Power Supply	Operating voltage/frequency	v/Hz	400/50
	Connected load, approx.	kVA	7
Space requirement	Length x Depth x Height, approx.	cm	2004 x 1430 x 2264
Total weight net		kg	1250

Surface & Profile Grinding Machine



LINEAR 350 B

Manual precision surface grinding machine

With a grinding length of 350 mm and a cross travel of 150 mm the Linear 350B is ideally suited for the tool-room. It features a high level of standard equipment to ensure easy handling and the manual control allows quick and precise small part production.

- Machine base made of cast iron
- Vibration -reducing construction
- Table slideway with linear rollers



ADDITIONAL EQUIPMENT

- Electro-magnetic chuck
- Balancing unit with arbour
- Wheel flange

LINEAR 350 B

	Description	Unit	LINEAR 350 B
Work area	Max. table stroke	mm	390
	Max. cross table movement	mm	210
	Max. height capacity New wheel -> Table	mm	362,5
	Magnetic chuck size	mm	350 x 150
	Max. table load (including chuck)	kg	120
Table	T-slots (number x width)	mm	1 x 17
Cross movement	Feed per rotation on hand wheel	mm	3
	Division of hand wheel	mm	0.02
Vertical movement	Crossfeed per division hand wheel	mm	0.005
Grinding wheel spindle	Dimensions (D x B x d)	mm	Ø 205 x 25 x Ø 31.75
	Speed	min ⁻¹	3000
Motors	Grinding wheel spindle	kW	1.5
Power supply	Connection values incl. electromagnetic chuck and coolant system	KVA	3
Space requirement	L x W x H	mm	1526 x 1405 x 1727
	Total weight net	kg	840

Rotary Table Grinding Machine



PRG DXNC

Precision rotary table grinding machine

Horizontal spindle CNC rotary table grinding machine. This machine has a portal design, with moving column crossfeed. The table is in constant rotary motion, which adapts automatically to the changing grinding diameter.

- Rotary table grinding machine with horizontal spindle
- Variable table speed with constant cutting speed
- Portal design with cast iron construction
- FANUC control



ADDITIONAL EQUIPMENT

- Variable speed control for the grinding wheel
- Work light LED
- Oil mist extraction
- Coolant system with paper filter and magnet separator

PRG DXNC

Description		Unit	PRG6DXNC	PRG8DXNC	PRG10DXNC	PRG120DXNC	
Work area	Magnetic chuck diameter	mm	Ø 600	Ø 800	Ø 1000	Ø 1200	
	Swing diameter	mm	Ø 750	Ø 900	Ø 952	Ø 1130	
	Distance between chuck and wheel	Ø 355 Grinding wheel	mm	-60 ~ 250		-	
		Ø 510 Grinding Wheel	mm	-		500	
Max. load	kg	150	250	1200	1300		
Table	Speed (V-constant, stepless)	min ⁻¹	20 ~ 150	15 ~ 130	8 ~ 65		
	Inclination	degree	±1	±1	±4		
Cross movement	Drive unit	AC servo motor (NC)					
	Stroke	mm	450	550	800	860	
	Automatic	Feed	mm/min	0~2000			
		Rapid traverse	mm/min	4000		5000	
	Manual	Per rotation	mm	0.01 (x 1), 0.1 (x 10), 1 (x 100)			
		Hand wheel division	mm	0.0001 (x 1), 0.001 (x 10), 0.01 (x 100)			
Rapid traverse		mm/min	4000		5000		
Vertical movement	Stroke	mm	310		500		
	Automatic	Feed	mm/min	0~2000			
		Rapid traverse	mm/min	4000			
	Hand adjustment	Per rotation	mm	0.01 (x 1), 0.1 (x 10), 1 (x 100)			
Hand wheel division		mm	0.0001 (x 1), 0.001 (x 10), 0.01 (x 100)				
Grinding wheel	Dimensions	mm	Ø 355 x 38 (max. 50) x Ø 127		Ø 510 x 50 (OP: max. 75) x Ø 127		
	Rotational speed	min ⁻¹	1500		1000		
Motors	Grinding wheel	kW	7.5				
	Table	kW	2.2	3.7	7.5		
Space requirement	Dimensions (L x W x H)	mm	1665 x 2560 x 2586	1810 x 2931 x 2586	4535 x 4296 x 3581		
	Total weight net	kg	4000	5000	12800	13000	

Lapping Machine



AERO LAP

Finishing system for polishing / lapping irregular profiles

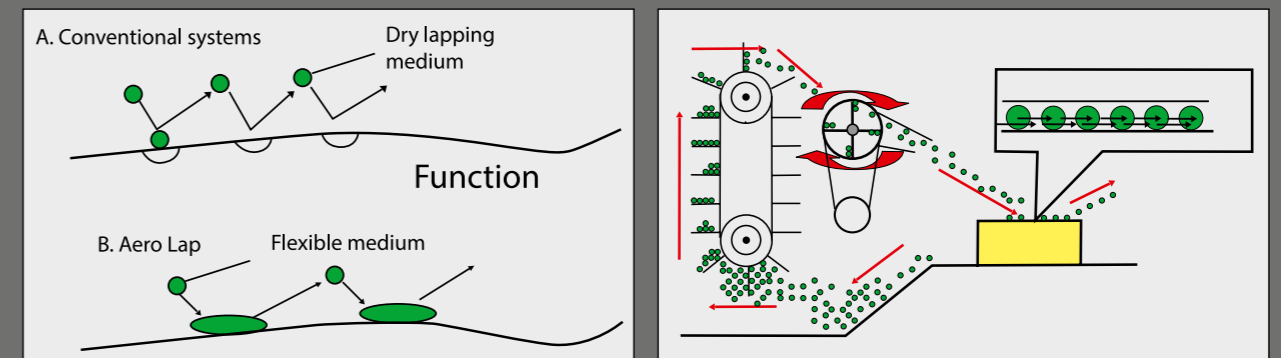
For extremely fine lapping of irregular profiles, AERO LAP is also equipped for small tools and parts. The special suspension multicone enables an automated lapping process without changing the geometry of the components to be worked. Multicone is a special elastic carrier medium to which diamond powder has been added. The media is directed onto the workpiece via a nozzle from a special turbine.

- Easy lapping of irregular profiles
- Improves tool life of all tools (drills, milling cutters, form punches, etc.)
- Suitable for PVD/CVD coating (pre/mirror-gloss lapping)
- Negligible production of dust and odour



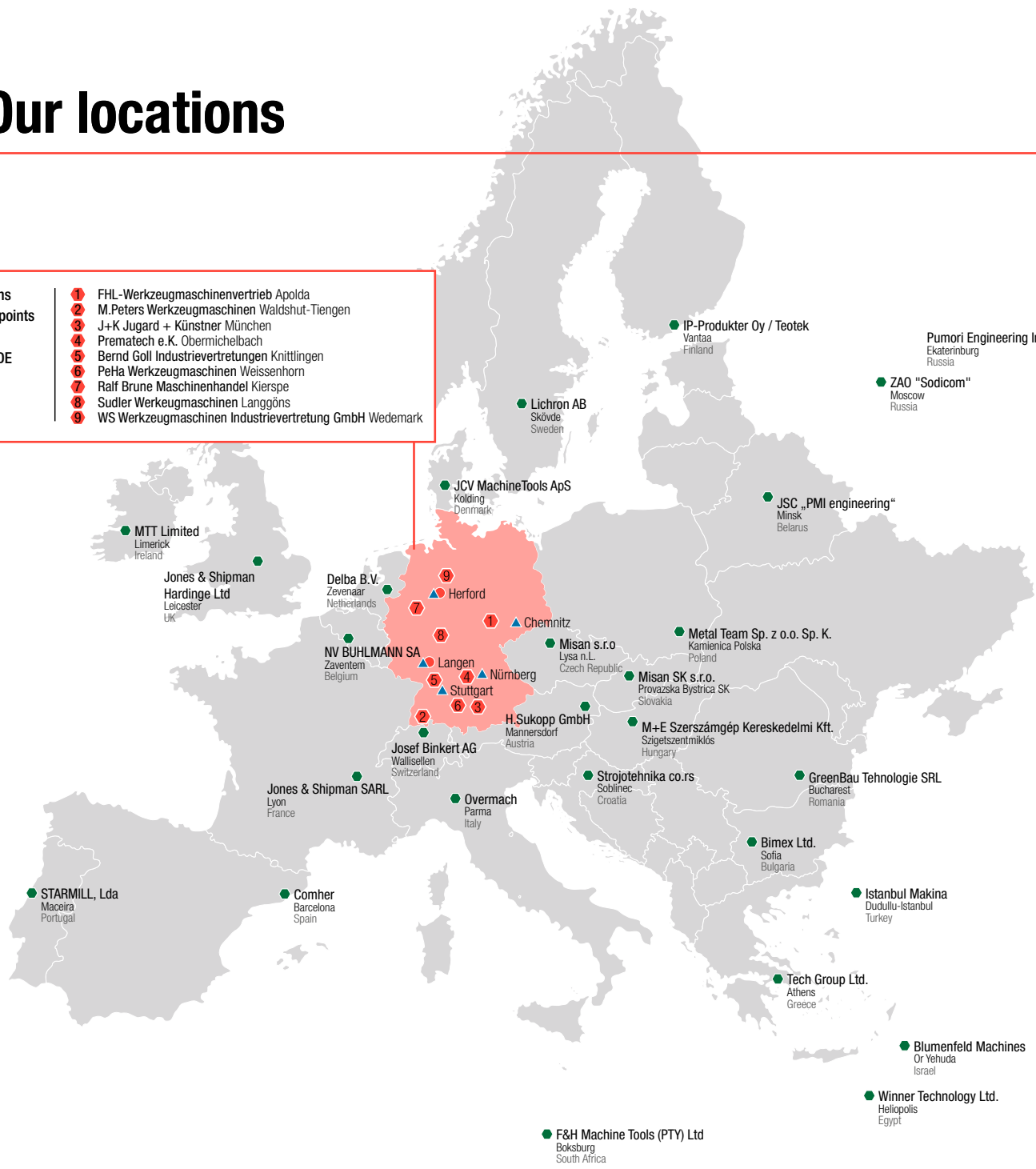
AERO LAP

Description	Unit	YT300
Workpiece dimensions	mm	300 x 300
Air connection	bar	0.5 - 0.8
Power supply 3 phases 50 Hz 16 A	V	400
Machine size W x H x D	mm	700 x 1600 x 900



Our locations

- | | |
|-----------------|--|
| ● Locations | ① FHL-Werkzeugmaschinenvertrieb Apolda |
| ▲ Servicepoints | ② M.Peters Werkzeugmaschinen Waldshut-Tiengen |
| ● Dealer | ③ J+K Jugard + Künstler München |
| ● Dealer DE | ④ Prematech e.K. Obermichelbach |
| | ⑤ Bernd Goll Industrievertretungen Knittlingen |
| | ⑥ PeHa Werkzeugmaschinen Weissenhorn |
| | ⑦ Ralf Brune Maschinenhandel Kierspe |
| | ⑧ Sudler Werkzeugmaschinen Langgöns |
| | ⑨ WS Werkzeugmaschinen Industrievertretung GmbH Wedemark |



Okamoto
GRIND - X



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All data contained herein is based on the technical status of the machines at the time of printing. We reserve the right to change any detail via further development. As a result, dimensions, weights, colours, etc. of the delivered machines may vary.
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