

# Reishauer AG



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170038

## RW 8206513

Shipping address

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Magna PT S.p.A.  
Via dei Ciclamini 4  
I-70026 MODUGNO BA

### Packing list / Delivery note

No. 820 6513      Date 13. September 2019  
Ref. I. Yüce      Tel. +41 44 832 2359  
Com. 78980

Your order no.      Date      09. July 2018  
4500520574

○ Conditions of delivery  
DDP Modungo  
LKW

Your supplier no.      91000635

Marks	Packing See last page	Size (cm) See last page	Weight net (kg) 12,757.00	Weight gross (kg) 13,012.00
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Pos.	Item No.	Quant.	Description	installed	not installed
95	906161.04	1	<p>Reishauer RZ 160 gear grinding machine</p> <p>COUNTRY OF ORIGIN: SWITZERLAND</p> <p>EORI NUMBER CUSTOMER: IT04886850728 VAT NUMBER CUSTOMER: IT04886850728</p> <p>EORI NUMBER REISHAUER AG: 5223555 MWST.NUMBER REISHUAER AG: DE185213549</p> <p>Compact high-performance gear grinding machine, specially designed for grinding gears, with two identical workpiece spindles on a rotating turret, used alternatively for grinding and loading. The loading and unloading of the workpiece on the first workpiece spindle, clamping, determination of the gear teeth position and the subsequent alignment for the correct meshing with the grinding wheel take place outside the machine's working area while grinding with the second workpiece spindle.</p> <p>BASIC MACHINE SPECIFICATION: -Machine base for mounting the workspindle turret, grinding slide, pneumatics and hydraulic unit</p>		

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Pos.	Item No.	Quant.	Description	installed	not installed
			<ul style="list-style-type: none"> <li>-Directly driven grinding spindle (B-axis) with short taper flange, infinitely adjustable spindle speed, spindle temperature-stabilised by means of multiple cooling oil circuits</li> <li>-Balancing unit for automatic balancing of grinding worm</li> <li>-Acoustic emission sensors for automatic positioning of the dressing tool in relation to the grinding worm and alignment of workpiece gear teeth</li> <li>-CNC shift axis (Y-axis)</li> <li>-CNC swivel axis (A-axis)</li> <li>-CNC infeed axis (X-axis)</li> <li>-Rotatable workpiece spindle support (C3-axis)</li> <li>-Two workspindles (C1 and C2 axes)</li> <li>-CNC axial feed axis (Z-axis)</li> <li>-Meshing device for automatic determination of gear teeth position, and subsequent alignment of pre-ground workpieces for optimum alignment in grinding worm</li> <li>-NC-controlled unit for automatic adjustment of grinding oil nozzle with decreasing grinding worm diameter (P-axis)</li> <li>-Machine housing with operating and service doors, separation of working area from loading area</li> <li>-Hydraulic unit integrated in machine base with switchgear and monitoring equipment mounted on rear of machine for all hydraulic functions</li> <li>-Pneumatic system with all necessary switchgear and monitoring equipment, located on rear of machine</li> <li>-Swivel-mounted control and data input panel with LCD flat screen</li> <li>-External data backup via USB storage medium, Ethernet or direct PC connection</li> <li>-Electrical control cabinet with air-conditioning, to IEC-204-1 recommendation</li> <li>-Siemens 840Ds1 CNC control system</li> <li>-Reishauer MMI for interactive input and management of workpiece and grinding process data and for machine operation</li> <li>-Reishauer Precision Drive to control position of workpiece spindles C1/C2</li> <li>-Siemens PLC S7 to handle machine's entire switching logic</li> <li>-Ethernet interface for remote maintenance (prerequisite: internet connection on customer's premises)</li> <li>-Warm-up cycle to stabilise machine temperature.</li> </ul>		
2800	213718.00	1	Tailstock cover C1		
2900	213719.00	1	Tailstock cover C2		
3500	213585.01	1	Grinding worm dressing device RP 121F with variable spindle speed Serial no. 145		



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Pos.	Item No.	Quant.	Description	installed	not installed
4000	908204.03	1	Noise level: Operation: max. 75 dBA Standby: max. 72 dBA		
4100	908570.05	1	Language machine labels: Italian/english operator language: Italian/english		
4200	908531.00	1	Complete machine in REISHAUER color concept; - machine base ultramarine blue RAL 5002 - machine hood, building groups, interior, screen auxiliary apparatuses: pure white RAL 9010		
4310	214449.86	1	Machine/special layout RZ 160 incl. cable duct and cables		
5100	905559.01	1	- Power supply : 3 x 400 V 50 Hz - Machine voltage : 3 x 400 V 50 Hz - Control voltage : 1 x 230 V 50 Hz - : 1 x 24 V DC		
5500	908215.02	1	Signal lamp, special version		
5800	908158.06	1	Energy counter PAC 3200		
6000	213979.00	1	Handle for electrical cabinet		
10300	908211.00	1	special regulations		
10800	905586.45	1	Remote-diagnosis via Internet and Ethernet: Requirements: The customer must provide 2-fixed IP-adresses for each machine. The machine must have connection to the Internet.		
15300	213990.40	1	Hydraulic basic equipment C1P+C2P /MPa for machine with 2 workspindles with separate clamping pressure control including manometer panel and pressure switch Prepared to install together with : - Tank capacity: 40 l - connections as per CETOP 03 - pressure accumulator with safety block - pressure gauge with bar/psi scale		
15500	155969.03	1	Hydraulic unit : Standard Bosch elektro motor IE3: Siemens hydraulic pump : Bosch Rexroth PV7-1X/10-14 return filter : Bosch Rexroth heat exchanger : Bosch Rexroth male coupling : Walther LP-019-2 female coupling : Walther LP-019-0		
15900	211747.77	1	Pneumatics SL-2, Standard		
16200	211532.17	1	Exhaust valve pneumatic MDH		
17200	211902.48	1	Central lubrication Getrag		
18100	213994.00	1	Retrofit kit additional flushing		
20100	344298.14	1	Special labels it,en		
20500	344310.00	1	Sign plate it,en 8a,4a,4a IEC		
20750	213025.09	1	Special turrets		
21000	344093.01	1	Special signs, fluid it,en Getrag		
21210	344322.18	2	Label 78980		

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Pos.	Item No.	Quant.	Description	installed	not installed
25100	908211.00	1	Dokumentation nach Getrag Spezifikation		
25200	908617.21	1	Operating instructions italian Hard copy and CD-ROM (.PDF)		
25900	908211.00	1	Dokumentation englisch auf CD-ROM		
30100	213426.00	1	Oil Mist Separator ELBARON RON/A 2500 DV high tension electrostatic supply voltage : 400V/50Hz control voltage: 230V/50Hz		
35200	155893.31	1	Automatic CO2 Fire extinguishing system FB 704; maker: Kraft & Bauer; including: - Fire detectors with temperature and infrared sensors - Manual actuator - 1 x 20 kg CO2 bottle with magnetic valve, content monitoring and alarm		
45300	210729.03	2	Meshing sensor for module 1 to 2		
50100	214090.30	2	Nozzle type 50, form A width 30mm, length 144mm		
65110	908530.03	1	Electrical interface ProfiNet, for loader system; - data exchange machine/loader (Standard)		
65200	908154.05	1	Technical support for the integration of a loading system provided by the customer for the install- ation at the customer's site (price on request)		
70100	908533.03	1	Electrical interface ProfiNet, for grinding oil filter system - data exchange machine/grinding oil filter system (Standard)		
70200	155970.66	1	Suction belt filter HSF 100 for one machine for filtration and cooling of the grinding oil with air-cooled compressor cooler unit for ambient temperatures up to 40°C  - Footprint : 3.8 m x 2.3 m - Tank capacity : 2500 l - Filtration capacity: 200 l/min - Pump unit for grinding/flushing: 11 kW; 160 l/min at 27 bar - Pump unit for machine cooling: 1.7 kW; 40 l/min at 6 bar  Cooling System: 1st Circuit for grinding oil cooling: - Cooling capacity: 20 kW 2nd Circuit for spindle cooling: - Cooling capacity: 3 kW - Spindle oil tank capacity: 60 l - Pump capacity: 15 l/min at 9 bar  Delivery incl. return pump		

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Pos.	Item No.	Quant.	Description	installed	not installed
			This suction belt filter cannot be used for grinding of cast iron as well as sintered or carbide-based materials.		
70300	156036.07	1	Return-flow pump, standard version - make: Brinkmann 2.6 kW / IE3 / 50 Hz - ambient temperature: <40°C - operating point: 250 l/min at 1.2 bar - intake/pressure ports Ø75 - additional noise protection, incl. oil drip pan		
70400	155970.93	1	Sludge carriage		
70500	155794.05	1	Collecting pan 2500 lt /HSF 100		
70600	507215.10	60	Liter spindle oil Velocite 6		
70900	908188.32	1	Energiezähler PAC3200		
71000	908188.35	1	Schlauchfangsicherung		
71100	908211.00	1	Mittleres Abwurfblech für Schlammwagen		
71200	908211.00	1	Sintogrind 353 für Vorabnahme verwenden		
75100	421184.00	2	REISHAUER clamping device FH38 quick change chuck centering diameter: ø38 mm support height: 52 mm support diameter: ø112 mm mounted directly on C-Axis with integrated actuating piston with clamping stroke control with lead through for oil (lockable) with lead through for control air  Serial no. 174 175		
75200	421184.25	2	Installation and operating instructions IT		
76100	398199.58	1	set of diamond rolls, 1-start; module 1.85; PA 17.5°; with HBR 700/800 mm KR 0°24'00" x 1.9 mm for 251.1.0440.36 PSA-329550 Serial no. 11 your material identification: PSA-329550		
76200	416513.56	1	grinding worm 275x160x160 mm A80G8V0167, m 1.85, PA 17.5°,3-starts  engrave: SLA-328377 your material identification: SLA-328377 IST NEU 41652011		
76300	416513.56	1	grinding worm 275x160x160 mm A80G8V0167, m 1.85, PA 17.5°,3-starts  engrave: SLA-328377 your material identification:		



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Pos.	Item No.	Quant.	Description	installed	not installed
76400	211619.00	1	SLA-328377 IST NEU 41652011 Flange for mounting grinding tools with a bore diameter of 160 mm and a face width up to 160 mm For grinding wheel dimensions up to 300x160x160 mm your material identification: SLW-251098		
80100	908211.00	1	special regulations		
80200	906161.41	1	Free-of-charge oil drip pan drawing for machine		
80300	906161.46	1	Vibration Monitoring IMI		
85100	211599.00	1	Pre-acceptance of machine at Reishauer Wallisellen (with 2 types of workpieces, 100 each) (cost of travelling, board and lodging not included)		
85200	901474.03	1	Commissioning (by Reishauer representative) of complete machine and instruction of operators, including travel costs, hotel and meals		
85300	908211.00	5	special regulations		
85400	908230.01	1	Preparation of machine for shipment by truck		
85500	908230.02	1	Preparation of coolant filtration unit for one machine for shipment by truck		
85600	116021.00	1	Freight + insurance		
			Payment terms: 60% after proper installation and readiness for operation 35% after proper final acceptance 5% after proper final acceptance against warranty bond Due dates according to the frame contract		



<b>1</b> Absender (Name, Anschrift, Land) Expéditeur (nom, adresse, pays) <b>REISHAUER AG</b> Werkzeugmaschinenfabrik Industriestrasse 36 CH-8304 Wallisellen		<b>6</b> Frachtführer (Name, Anschrift, Land, weitere Angaben) Transporteur (nom, adresse, pays, autres références) <b>T-Lub Management</b> Garrielstrasse 26 CH-8303 Basersdorf			
<b>2</b> Empfänger (Name, Anschrift, Land) Destinataire (nom, adresse, pays) <b>Magna PT S.p.A.</b> Via C. C. Lamini 4 70026 Iggro BA - I		<b>7</b> Nachfolgende Frachtführer / Transporteurs successifs Name / nom <b>CMR. GUYAN AG</b> Anschrift / adresse <b>Industriestrasse 6</b> Land / pays <b>CH - 7220 Schiers</b> Annahme und Abnahme / Reçu et acceptation Datum / Date <b>16.09.2019</b> Unterschrift / Signature <i>R. Meyer</i>			
<b>3</b> Übernahme des Gutes / Prise en charge de la marchandise Ort / Lieu <b>Wallisellen</b> Land / Pays <b>CH</b> Ankunftszeit / Heure d'arrivée Datum / Date <b>16.09.2019</b> Abfahrtszeit / Heure de départ		<b>8</b> Vorbehalte und Bemerkungen des Frachtführers bei der Übernahme des Gutes Réserves et observations du transporteur lors de la prise en charge de la marchandise			
<b>4</b> Auslieferung des Gutes / Livraison de la marchandise Ort / Lieu <b>Iggro BA</b> Land / Pays <b>I</b> Öffnungszeit des Auslieferungsortes / Heures d'ouverture du dépôt					
<b>5</b> Anweisungen des Absenders Instructions de l'expéditeur <b>GR 15159 - GR/32991</b>		<b>9</b> Vom Absender an den Frachtführer ausgehändigte Dokumente Documents remis au transporteur par l'expéditeur <b>L. W. Schuler</b>			
<b>10</b> Kennzeichen und Nummern Marques et numéros <b>RZ 160</b> <b>SUXUMOB</b>	<b>11</b> Anzahl der Packstücke Nombre de colis <b>1</b> <b>1</b> <b>1</b> <b>6</b> <b>1</b>	<b>12</b> Art der Verpackung Mode d'emballage <b>offen</b> <b>offen</b> <b>offen</b> <b>Coll.</b> <b>Kiste</b>	<b>13</b> Bezeichnung des Gutes Nature de la marchandise (ADR*) <b>Maschine</b> <b>Filter</b> <b>Ölwanne</b>	<b>14</b> Bruttogewicht in kg Poids brut, kg <b>9000</b> <b>2700</b>  <b>700</b> <b>661</b> <b>451</b> <hr/> <b>13012</b>	<b>15</b> Umfang in m3 Cubage m3
<b>16</b> Besondere Vereinbarungen zwischen Absender und Frachtführer Conventions particulières entre l'expéditeur et le transporteur	<b>17</b> Zu zahlen vom: A payer par: Fracht Prix de transport Nebengebühren Frais accessoires Zollgebühren Droits de douane Andere Gebühren Autre frais	<b>18</b> Weitere nützliche Angaben Autres indications utiles <b>Verzollung BKM-CH 8240 Thurgau</b>	<b>19</b> Rückerstattung Remboursement	<b>20</b> Diese Beförderung unterliegt trotz einer gegenteiligen Abmachung den Bestimmungen des Übereinkommens über den Beförderungsvertrag im internat. Strassengüterverkehr (CMR). Ce transport est soumis, nonobstant toute clause contraire, à la Convention relative au contrat de transport international de marchandises par route (CMR).	
<b>21</b> Ausgefertigt in / Établie à <b>Wallisellen</b> am / le <b>16. September</b> 20... <b>19</b>	<b>22</b> <i>Handwritten signature</i> <b>REISHAUER AG</b> Werkzeugmaschinenfabrik Industriestrasse 36 CH-8304 Wallisellen Unterschrift oder Stempel des Absenders Signature ou timbre de l'expéditeur	<b>23</b> <b>CMR. GUYAN AG</b> <b>Industriestrasse 6</b> <b>CH-7220 Schiers</b> <i>Handwritten signature</i> Unterschrift oder Stempel des Frachtführers Signature ou timbre du transporteur	<b>24</b> Waren gut empfangen / Marchandises reçues Ankunftszeit / Heure d'arrivée Abfahrtszeit / Heure de départ Ort / Lieu <b>CH-7220 Schiers</b> <i>Handwritten signature</i> Unterschrift und Stempel des Empfängers Signature et timbre du destinataire		

Die mit fetter eingetragenen Rubriken müssen vom Frachtführer ausgefüllt werden.  
Les parties encadrées de lignes grasses doivent être remplies par le transporteur.

Ausfüllen unter der Verantwortung des Absenders.  
A remplir sous la responsabilité de l'expéditeur.

\*ADR: Für Zusatzangaben im Beförderungsspapier (einzelne Klassen) siehe Kap. 5.4 ADR  
\*ADR: Pour autres indications sur le document de transport (certains classes) voir chapitre 5.4 ADR