The protagonists: people, ideas, products.

Watchword: forward-thinking. The know-how developed over sixty years of success with over 700 patents is the lodestar for the new generation of managers, engineers and technicians who aim for excellence: from design, to materials, to performance. The customization of the product is the basis of every project: customization is favoured over seriality. Every customer - from large to medium-sized businesses - has their own specific needs: their demands are the real driver to invest in research and ensure flexibility in the offer. It is the result of the perfect combination of people, ideas and products, thanks to which Gruniverpal is a reference point for different sectors: from plastics and tyre moulding to automotive, from aeronautics to the military sector.

Welcome to Gruniverpal.

The entire range of Gruniverpal machines is certified according to the following international standards:

- Ex
- CE
- UL
- PC
- VV
- CCC
Minidrel S Series
For presses with clamping forces from 180 to 2400t.

The proper solution for absolute precision positioning of press moulds during lifting operations: from plastic injection producers to aluminium foundries. Top of the range, it is the most advanced high-technology expression, thanks to which Gruniverpal has strengthened its leading position on the market.

STRENGTHS
- Payload and working radius 100% calibrated according to type of press, height over columns, mould size.
- Perfect load verticality in every telescopic boom position: maximum precision, zero sway even in the final centring phase.
- Steady mould lifting throughout the lifting operation at any height when complying with the maximum payload limits.
- Instrument panel/wireless remote control: proportional and simultaneous movement control. Remote mould changes, maximum operator safety, millimetric centring.
- Customizable telescopic boom reach: mould changes both in a transversal and frontal position relative to the press.
- Patented roll-over protection system: automatic "overload" shutdown.
- Overall dimensions: 50% less than standard forklifts and cranes with a comparable lifting capacity.

PATENTED SUPERIOR QUALITY
Standard on all Gruniverpal mould-handling equipment:
- "Condec" system controlled deceleration: the total absence of sway during the transfer and lifting phases of moulds. For maximum integrity of the mould during positioning on the press.
- 'Boostrib' System: ability to exceed the rated payload by 15% in case of emergency for maximum operator and load safety.

MODEL 20S 25S 40S 50S 60S 75S 100S 120S 150S 200S 350S

FOR PRESSES WITH CLAMPING FORCES UP TO:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>2000t</th>
<th>2500t</th>
<th>3000t</th>
<th>4000t</th>
<th>5000t</th>
<th>6000t</th>
<th>7000t</th>
<th>8000t</th>
<th>9000t</th>
<th>10000t</th>
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<th>12000t</th>
<th>15000t</th>
<th>20000t</th>
<th>25000t</th>
<th>30000t</th>
<th>35000t</th>
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<td>2,500 kg at 500 mm</td>
<td>3,000 kg at 500 mm</td>
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<td>25,000 kg at 1,000 mm</td>
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<tr>
<td>NOMINAL MAX. PAYLOAD ACCORDING TO INTERNATIONAL STANDARDS</td>
<td>2,000 kg at 300 mm</td>
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<td>7,000 kg at 600 mm</td>
<td>6,500 kg at 600 mm</td>
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<td>MAXIMUM LIFTING HEIGHT</td>
<td>1.80 m</td>
<td>1.90 m</td>
<td>1.20 m</td>
<td>1.40 m</td>
<td>1.40 m</td>
<td>2.30 m</td>
<td>2.72 m</td>
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<td>3.54 m</td>
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<td>4.16 m</td>
<td>4.86 m</td>
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<tr>
<td>MAXIMUM FOOTPRINT</td>
<td>0.75 m</td>
<td>1.74 m</td>
<td>1.40 m</td>
<td>1.40 m</td>
<td>1.40 m</td>
<td>1.40 m</td>
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<td>1.40 m</td>
</tr>
</tbody>
</table>

Instrument panel/wireless remote control: proportional and simultaneous movement control. Remote mould changes, maximum operator safety, millimetric centring.

Standard on all Gruniverpal mould-handling equipment:
- 'Condec' system controlled deceleration: the total absence of sway during the transfer and lifting phases of moulds. For maximum integrity of the mould during positioning on the press.
- 'Boostrib' System: ability to exceed the rated payload by 15% in case of emergency for maximum operator and load safety.
GB series
For presses with clamping forces up to 180t.

A machine with large-scale design for small-scale operations. The GB Series embodies the calling to share in detail our customer’s needs. High degree of performance in tight spaces; ideal both in the plastics industry and in industrial maintenance applications. Another challenge overcome by Gruniverpal’s research and technology.

STRENGTHS
- Hydraulic turret rotation up to 270°.
- No stabilizers: easy movement of the machine even with a mould rotated on its transfer axis.
- Instrument panel/wireless remote control: total control of electrohydraulic movements (including transfer).
- Fully automatic and proportional movements: rapid manoeuvring time.
- Maximum flexibility in tight spaces (machine footprint equal to a EUR-pallet).
- Patented roll-over protection system: rotation phase control and automatic “overload” shutdown.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>GB 100</th>
<th>GB 150</th>
<th>GB 300</th>
<th>GB 500</th>
<th>GB 750</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR PRESSES WITH CLAMPING FORCES UP TO:</td>
<td>50t</td>
<td>80t</td>
<td>100t</td>
<td>150t</td>
<td>180t</td>
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<tr>
<td>ACTUAL MAX. CANTILEVERED PAYLOAD</td>
<td>150 kg at 1,500 mm</td>
<td>150 kg at 1,500 mm</td>
<td>300 kg at 1,000 mm</td>
<td>500 kg at 1,000 mm</td>
<td>750 kg at 1,000 mm</td>
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<td>2.6 m</td>
<td>2.6 m</td>
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<td>3.8 m</td>
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<tr>
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<td>1.5 m</td>
<td>1.5 m</td>
<td>3.0 m</td>
<td>3.0 m</td>
<td>3.0 m</td>
</tr>
<tr>
<td>MAXIMUM FOOTPRINT</td>
<td>1.30 x 1.02 m</td>
<td>1.30 x 1.02 m</td>
<td>1.40 x 1.05 m</td>
<td>1.40 x 1.05 m</td>
<td>1.40 x 1.05 m</td>
</tr>
</tbody>
</table>

TRANSIDREL Series
For presses with clamping forces up to 4,000t.

The heavyweight of Gruniverpal’s technology for frontal and lateral handling of large-dimension moulds with weights up to 80,000kg. This operation - thanks to the ability to install forks mounted on the rotating turret - is performed by a single piece of lifting equipment whose dimensions are reduced by over 50% compared to a traditional forklift.

STRENGTHS
- Frontal/lateral bi-movement of the load.
- Mould pushers with independent and/or synchronized control: mould insertion and extraction between the press columns.
- Automatic self-leveling stabilizer system in each of the machine’s mould positions: automatic control of the plane with respect to the frontal and lateral axes.
- Steered-wheel or rail-mounted versions.
- Ability to install forks on a turret able to rotate up to 270° and automatic advancement of the load.
- Wireless proportional remote control: control of all movements at a distance (including traction and steering).

<table>
<thead>
<tr>
<th>MODEL</th>
<th>50B</th>
<th>80B</th>
<th>100B</th>
<th>300B</th>
<th>400B</th>
<th>500B</th>
<th>600B</th>
<th>800B</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR PRESSES WITH CLAMPING FORCES UP TO:</td>
<td>750t</td>
<td>1,000t</td>
<td>1,500t</td>
<td>2,400t</td>
<td>3,200t</td>
<td>5,000t</td>
<td>6,000t</td>
<td>8,000t</td>
</tr>
<tr>
<td>ACTUAL MAX. CANTILEVERED PAYLOAD AT 400mm</td>
<td>5,000 kg</td>
<td>6,000 kg</td>
<td>10,000 kg</td>
<td>15,000 kg</td>
<td>20,000 kg</td>
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<td>50,000 kg</td>
<td>80,000 kg</td>
</tr>
<tr>
<td>FRONTAL AND LATERAL MOVEMENT</td>
<td>ON DEMAND</td>
<td>ON DEMAND</td>
<td>ON DEMAND</td>
<td>ON DEMAND</td>
<td>ON DEMAND</td>
<td>ON DEMAND</td>
<td>ON DEMAND</td>
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<td>MAXIMUM LIFTING HEIGHT</td>
<td>2.60 x 1.40 m</td>
<td>2.60 x 1.40 m</td>
<td>3.00 x 1.60 m</td>
<td>3.00 x 1.60 m</td>
<td>3.00 x 1.60 m</td>
<td>3.00 x 1.60 m</td>
<td>3.00 x 1.60 m</td>
<td>3.00 x 1.60 m</td>
</tr>
<tr>
<td>MAXIMUM FOOTPRINT</td>
<td>1.40 x 0.82 m</td>
<td>1.40 x 0.82 m</td>
<td>1.40 x 1.00 m</td>
<td>1.40 x 1.00 m</td>
<td>1.40 x 1.00 m</td>
<td>1.40 x 1.00 m</td>
<td>1.40 x 1.00 m</td>
<td>1.40 x 1.00 m</td>
</tr>
</tbody>
</table>
### STRENGTHS

- Payloads and reaches calculated according to the type of press and tyre mould.
- Proportional movement control: millimetric and instantaneous centring of the mould on the press.
- Patented telescopic boom with integrated hook: lower overall height inside the press, less sway.
- Ability to transport two moulds simultaneously: optimization of mould changes on the presses.
- Steady lifting of the mould at any height of the lifting range when complying with the maximum payload.
- Control via control panel/wireless remote control: remote mould change, maximum operator safety.
- Patented roll-over protection system: automatic shutdown of certain movements in case of "overload".
- Specific lift height and telescopic boom adjustable to individual needs.

### APPLICATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>GB 150</th>
<th>GB 500</th>
<th>25S</th>
<th>40S</th>
<th>60S</th>
<th>75S</th>
<th>50B</th>
<th>90B</th>
<th>125B</th>
<th>120000</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPLICATION</td>
<td>Change centre mould</td>
<td>Change centre mould</td>
<td>Moulds motorcycle</td>
<td>Light vehicle</td>
<td>150 kg at 1,500 mm</td>
<td>500 kg at 1,000 mm</td>
<td>2,500 kg at 1,500 mm</td>
<td>4,000 kg at 1,500 mm</td>
<td>6,000 kg at 1,500 mm</td>
<td>7,500 kg at 1,500 mm</td>
</tr>
<tr>
<td>MAXIMUM LIFTING HEIGHT</td>
<td>3.6 m</td>
<td>3.6 m</td>
<td>3.6 m</td>
<td>3.6 m</td>
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<td>7.2 m</td>
<td>7.2 m</td>
<td>7.2 m</td>
</tr>
<tr>
<td>MAXIMUM WORKING RADIUS</td>
<td>3.80 x 1.40</td>
<td>2.80 x 1.20</td>
<td>2.25 x 1.40</td>
<td>2.07 x 1.40</td>
<td>3.25 x 1.40</td>
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<tr>
<td>MAXIMUM FOOTPRINT</td>
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<td>6.0-3.0</td>
<td>6.0-3.0</td>
</tr>
</tbody>
</table>
**MINIDREL B Series**

**Up to 50000 Kg payload.**

This mobile crane is unique in its class thanks to a patented lifting system that guarantees a lifting capacity of up to 40% more than traditional cranes of equal size. Compactness and manoeuvrability attest to the superior quality of Gruniverpal.

**STRENGTHS**

- More than 70 versions available with payloads of up to 50,000 kg for either standing or seated operator.
- High performance even on inclined planes: pedal controlled, power-assisted and squared steering system with reverse control.
- Next-generation wireless proportional remote control of all movements at a distance (including traction and steering).
- Extensive customization with over 300 catalogue options available.
- Patented Multipos system: pedals and hydrostatic controls can be operated on both the right and left of the crane. Easy manoeuvring, maximum visibility even with bulky loads.
- Patented Anti-Momentum system: automatic blocking of certain movements in the event of load sway, even in the case of “overloading” or poor ground contact.

**A RECORD-WORTHY PRODUCT RANGE**

Unique in Europe, Gruniverpal equips all Minidrel B models with:

- Right or left seated operating position: more visibility during manoeuvring within industrial sites or while carrying bulky loads that reduce visibility.
- Turret able to rotate up to 220°.
- 4x4 traction: more “grip” and safety during both indoor and outdoor movement.
- Front stabilizers and payload increase of 25% more than nominal payload.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>20 B</th>
<th>30 B</th>
<th>50 B</th>
<th>75 B</th>
<th>90 B</th>
<th>125 B</th>
<th>150 B</th>
<th>250 B</th>
<th>400 B</th>
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<tbody>
<tr>
<td>ACTUAL MAX. CANTILEVERED PAYLOAD</td>
<td>2,000 kg</td>
<td>3,000 kg</td>
<td>5,000 kg</td>
<td>7,000 kg</td>
<td>9,000 kg</td>
<td>12,000 kg</td>
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<td>at 500 mm</td>
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<tr>
<td>at 1,000 mm</td>
<td>5,000 kg</td>
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<td>9,000 kg</td>
<td>12,000 kg</td>
<td>15,000 kg</td>
<td>20,000 kg</td>
<td>30,000 kg</td>
<td>40,000 kg</td>
<td></td>
</tr>
<tr>
<td>at 1,500 mm</td>
<td>7,000 kg</td>
<td>9,000 kg</td>
<td>12,000 kg</td>
<td>15,000 kg</td>
<td>20,000 kg</td>
<td>30,000 kg</td>
<td>40,000 kg</td>
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<tr>
<td>at 2,000 mm</td>
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<td>12,000 kg</td>
<td>15,000 kg</td>
<td>20,000 kg</td>
<td>30,000 kg</td>
<td>40,000 kg</td>
<td>50,000 kg</td>
<td>60,000 kg</td>
<td></td>
</tr>
<tr>
<td>at 2,500 mm</td>
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<td>190°</td>
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<td>ELECTRIC</td>
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</tbody>
</table>
Gruniverpal: lifting champion

Special lifting equipment: another sector where Gruniverpal ensures the ultimate in technology, safety and reliability. Even in the most delicate lifting operations, the customer is relieved of any problem.

RAD 100.16-AX9
Nine-axis remote controlled robotic implement for micrometric controlled positioning of equipment up to 20m away.

GRUNIROT 20
Battery operated electrohydraulic tugs for towing machines of up to 50t. Specific for heavy industrial and military applications.

MINIDREL 35SR
Towable trailer for civil, industrial and military maintenance applications. Working height up to 10m with residual payload of 1000kg at 6m of cantilever.

TITAN
Remote control truck with special wheels to reduced ground pressure. Payload up to 80t for the transport of industrial and military machinery.

PEF 60000.170
Self-leveling lifting platform with the option of up to 30° of tilt control. Max payload of up to 100t and length of up to 30m.

ATEX SERIES
All Gruniverpal equipment can be customized to operate in explosion-risk areas according to any class and group classified by ATEX regulations.

MINIDREL TRC SERIES
Mobile crane series with rotating turret for the maintenance of assembly lines in the automotive sector. Payload up to 5t and max. reach of 10m.

FORKIDREL
Self-propelled, 270° rotating forklift assembly with continuous track advance. Lift height of up to 10m and max payload of 10t.
A range of optionals reinforces the concept of 'on demand' in Gruniverpal's design and production. Every single detail is viewed as a personalized response to customer needs.

**OPTIONAL PLATFORM FOR MINIDREL S**
A platform series that can be equipped with magnets mounted on the automatic feed implement for the removal and storage of ferrous materials.

**WINCHES**
Hydraulic winch series with payloads from 200kg to 50t installable on MINIDREL S and B series. Compact versions are available for specialises.

**JIB**
Additional boom can be installed on any hydraulic or manual control crane. Payload up to 1000kg and the option of special implements.

**FRONTAL TABLE EXTENSION**
Tilting table with payload of up to 25t. Specific for MINIDREL S and B series. Optional installation of pushers.

**MOULD CARRYING TOOLS**
On demand mould handling tool with mechanical or hydraulic movements and a payload up to 20,000kg. Specific for use in the tyre construction industry.

**SPECIAL IMPLEMENTS**
On demand special implements with hydraulic control of up to 6 movements and a payload of up to 5t. Adaptable on any machine for any type of application.

**REMOTE CONTROL**
Wireless remote control with up to 16 functions in fanny pack or push button versions for proportional control of any movement.

**SPECIAL MANIPULATORS**
Removable manipulators with pneumatic, hydraulic or mechanical controls for the handling and grasp of any type of object and machinery.

**JOYSTICK SIMULATORS**
Joystick simulator series with electronic or hydraulic control for both civil and industrial aeronautics testing.

**ULTRASONIC SENSORS**
Ultrasonic sensors of up to 2000mm can be installed in any position on the machine for safety during movement.