



RA/RA-UC

RADIAL RIVETING MACHINES

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NEW AGME RIVETING MACHINES WITH THE LATEST TECHNOLOGY

The new AGME RA radial riveting machines are highly efficient machines that integrate numerous improvements and solve most assembly needs: from forming small rivets in fragile parts to achieving large heads in different shapes.

With a more current and innovative design, RA riveting machines incorporate a significant advance in the concepts of durability, ergonomics and respect for the environment. Thanks to a working system based on a planetary movement, the fourth generation of AGME riveting machines achieves **perfect riveted joints** with very little effort by progressive forming with an adequate fibers' distribution.

Additionally, their **modular design** provides multiple possibilities which deliver great versatility, efficiency and an important cost reduction.



/RA-16 with AC-1

/ TECHNICAL FEATURES

| MODEL | RA-6 | RA-12 | RA-14 | RA-16 | RA-18 | RA-20 |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Max final diameter 40 Kg/mm ² | 6 mm | 12 mm | 14 mm | 16 mm | 18 mm | 20 mm |
| Adjustable riveting stroke | 5-40 mm | 5-40 mm | 5-50 mm | 5-50 mm | 5-50 mm | 5-50 mm |
| Max. air pressure | 6 bar | 6 bar | 6 bar | - | 6 bar | - |
| Max. hydraulic pressure | - | - | - | 40 bar | - | 65 bar |
| Axial force | 475 daN | 1.265 daN | 1.880 daN | 2.500 daN | 3.240 daN | 4.000 daN |
| Adjustable riveting time | 0-5 sec | 0-5 sec | 0-5 sec | 0-5 sec | 0-5 sec | 0-5 sec |
| Power circuit | 230/400v 50/60 Hz | 230/400v 50/60 Hz | 230/400v 50/60 Hz | 230/400v 50/60 Hz | 230/400v 50/60 Hz | 230/400v 50/60 Hz |
| Installed Power | 0.4 kW | 0.7 kW | 1.6 kW | 2.8 kW | 1.6 kW | 2.8 kW |
| Control Circuit | 24V DC | 24V DC | 24V DC | 24V DC | 24V DC | 24V DC |
| Two hand safety control | Included | Included | Included | Included | Included | Included |
| Operation control in 9 languages | Included | Included | Included | Included | Included | Included |
| Parts counters | Included | Included | Included | Included | Included | Included |
| Stroke centesimal adjustment | Included | Included | Included | Included | Included | Included |
| Weight | 162 Kg | 173 Kg | 278 kg | 305 kg | 315 Kg | 310 kg |

* The RA-4 and RA-30 are built on customer's request

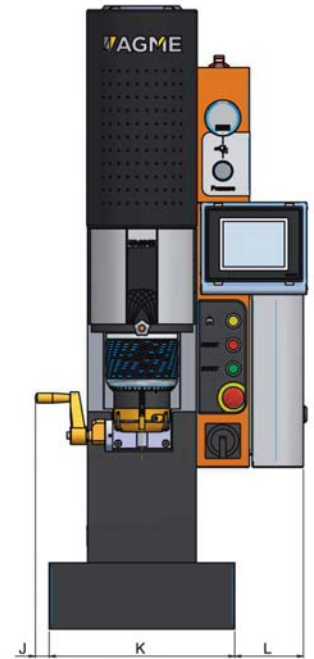
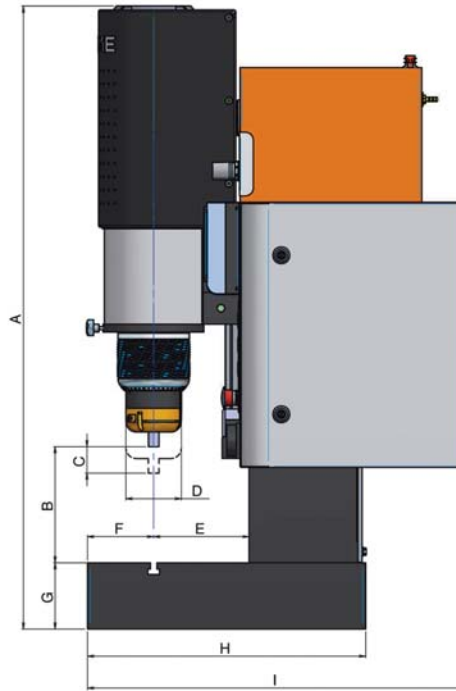


AGME, your partner for Automatic Assembly Equipment!

PNEUMATIC

/ DIMENSIONS

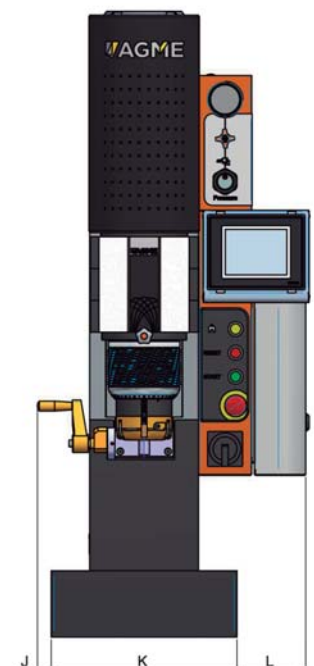
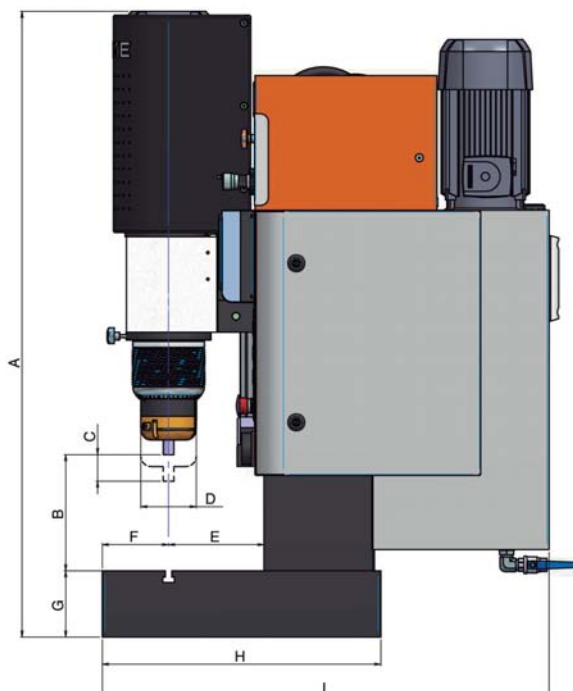
| MODEL | RA-6 | RA-12 | RA-14 | RA-18 |
|-------|---------|---------|-----------|-----------|
| A | 713-928 | 794-964 | 1015-1225 | 1015-1225 |
| B | 85-300 | 60-230 | 60-270 | 60-270 |
| C | 5-40 | 5-40 | 5-50 | 5-50 |
| D | Ø74 | Ø90 | Ø105 | Ø125 |
| E | 170 | 170 | 180 | 200 |
| F | 120 | 120 | 125 | 115 |
| G | 100 | 100 | 125 | 125 |
| H | 470 | 470 | 525 | 525 |
| I | 696 | 696 | 713 | 723 |
| J | 40 | 40 | 30 | 30 |
| K | 320 | 320 | 350 | 350 |
| L | 135 | 135 | 130 | 130 |

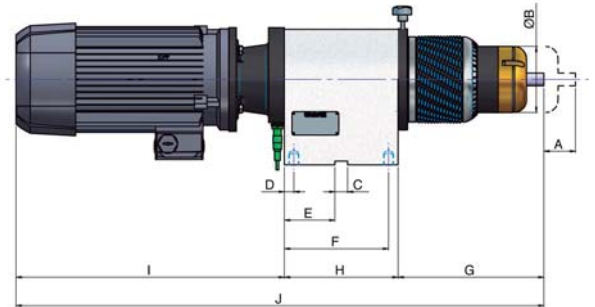
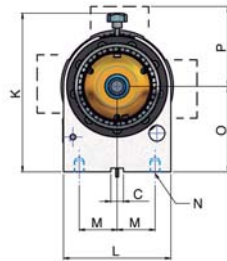


HYDRAULIC

/ DIMENSIONS

| MODEL | RA-16 | RA-20 |
|-------|-----------|-----------|
| A | 1020-1230 | 1020-1230 |
| B | 60-270 | 60-270 |
| C | 5-50 | 5-50 |
| D | Ø105 | Ø125 |
| E | 180 | 180 |
| F | 125 | 125 |
| G | 125 | 125 |
| H | 525 | 525 |
| I | 845 | 845 |
| J | 30 | 30 |
| K | 350 | 350 |
| L | 130 | 130 |





/RA-12 UC

AGME **riveting head** units are designed to be integrated into special machines by engineering firms or special purpose machine manufacturers.

The riveting heads are also developed to work in any position, **horizontal, vertical or inclined**, and offer great flexibility.

/ DIMENSIONS

| MODEL | RA-6 UC | RA-12 UC | RA-14 UC | RA-16 UC | RA-18 UC | RA-20 UC |
|-------|---------|----------|----------|----------|----------|----------|
| A | 5-40 | 5-40 | 5-50 | 5-50 | 5-50 | 5-50 |
| B | 73,5 | 89,5 | 105 | 105 | 125 | 125 |
| C | 20 | 20 | 20 | 20 | 20 | 20 |
| D | 10 | 7,5 | 15 | 15 | 15 | 15 |
| E | 50 | 72,5 | 80 | 80 | 80 | 80 |
| F | 110 | 157,5 | 165 | 165 | 165 | 165 |
| G | 155 | 158,5 | 231 | 231 | 231 | 231 |
| H | 120 | 165 | 180 | 180 | 180 | 180 |
| I | 271 | 310,5 | 420 | 425 | 420 | 425 |
| J | 546 | 634 | 831 | 836 | 831 | 836 |
| K | 210 | 235 | 262 | 250,5 | 300 | 250.5 |
| L | 135 | 160 | 195 | 170 | 235 | 170 |
| M | 57,5 | 60 | 60 | 60 | 60 | 60 |
| N | M10x20 | M10x20 | M12x30 | M16x30 | M16x30 | M16x30 |
| O | 110 | 125 | 135 | 135 | 155 | 135 |
| P | 100 | 121 | 126 | 126 | 126 | 126 |

/ TECHNICAL FEATURES

| MODEL | RA-6 UC | RA-12 UC | RA-14 UC | RA-16 UC | RA-18 UC | RA-20 UC |
|---|----------|-----------|-----------|-----------|-----------|-----------|
| Max. final diameter 40 Kg/mm ² | 6 mm | 12 mm | 14 mm | 16 mm | 18 mm | 20 mm |
| Adjustable riveting stroke | 5-40 mm | 5-40 mm | 5-50 mm | 5-50 mm | 5-50 mm | 5-50 mm |
| Max. air pressure | 6 bar | 6 bar | 6 bar | - | 6 bar | - |
| Max. hydraulic pressure | - | - | - | 40 bar | - | 65 bar |
| Axial force | 475 daN | 1.265 daN | 1.880 daN | 2.500 daN | 3.240 daN | 4.000 daN |
| Motor power | 0,25 kW | 0,55 kW | 1,5 kW | 1,5 kW | 1,5 kW | 1,5 kW |
| Stroke centesimal adjustment | Included | Included | Included | Included | Included | Included |
| Weight | 19 Kg | 30 Kg | 53 Kg | 72 Kg | 72 Kg | 77 Kg |

* The RA-4 UC and RA-30 UC are built on customer's request

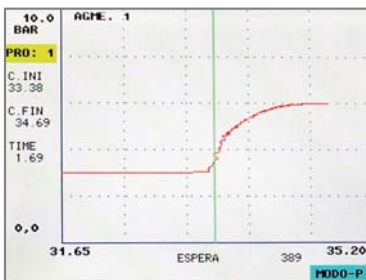


/ CONTROLS AND SOFTWARE

The management of riveting can be completed through different efficient, agile and easy to use control systems:

C-400 standard control

This control is the basic equipment of all riveting machines. Among other parameters, it can adjust and visualize the riveting time, 5 preselection counters, safety time and shift-based counters.



AC1 and AC2 Quality Assurance Systems

They are more advanced systems that control the pressure and position during the riveting process. They detect and evaluate the following parameters, selecting Ok and NOK parts:

- Contact and final positions
- Riveting distance
- Riveting pressure
- Riveted head height
- Riveting time

Thanks to these parameters, the rivet presence and initial length, as well as the riveting tool wear, can also be detected.

The AC1 quality assurance system is based on the absolute measure of the riveting head position. It measures the riveting stroke from the machine resting position.

The AC2 quality assurance system includes a floating device that holds the components to be riveted and determines the reference surface for measurement of the riveting stroke.



AC System

/ APPLICATIONS

The RA radial riveting machines have a large number of possible applications in cold forming processes for rigid or mobile joining of components with rivets. AGME integrates its **in-house riveting technology** by adapting our

standard riveting machines to the technical specifications of every production process and application, in terms of dimensions and controls, as well as special fixtures, riveting tools and other accessories.

Our **custom riveting solutions** are used by highly demanding industries such as:

- **Automotive components:** manufacturers of seats, ball joints, hinges, window regulators, hand brakes, etc.
- **Other industries:** hardware industry, electrical, household appliances and general industry.



This leadership in riveting technology is based on our **extensive experience** and expertise in developing riveting solutions, our **R+D+I activity** in pursuit of excellence and an important **international presence**. Our extensive distribution and technical service network enable full support at all times.



AGME WORLDWIDE

Global presence

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Belgium
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Germany
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Hungary
Italy
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Poland
Portugal
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Slovakia
Slovenija
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Automated assembly solutions

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