



CARROS NORMALIZADOS SUSPENDIDOS
NORMALIZED FLYING CAM UNITS

71

RECOMENDACIONES

Las unidades de punzonado se han diseñado para trabajar con un determinado ángulo. Cualquier variación de este ángulo, por pequeño que sea, puede ocasionar un desgaste prematuro de la unidad.

Cuando la unidad de punzonado lleve placas intercambiables de bronce con grafito insertado, se recomienda que se realice una lubricación periódica de éstas con aceite de lubricación ligero.

Cuando se sustituyan las placas desgastadas por otras nuevas es preciso verificar que el asiento de todas las piezas sea correcto y realizar su ajuste si fuese necesario.

Se deben respetar los valores de fuerza máxima de punzonado, según la hoja de características de cada unidad y colocar los esfuerzos dentro del cabezal de la unidad lo más centrados posible. No se permiten expansiones de la superficie del cabezal.

Se deben evitar esfuerzos laterales.

Tanto los resortes de espiras como los de gas están colocados en la unidad para garantizar que la unidad vuelva a su posición inicial, no para desenclavar los útiles de trabajo de la matriz.

Se debe evitar que caigan sobre la unidad virutas o partículas que puedan dañar las superficies de deslizamiento.

Se recomienda que se trabaje con un ajuste ligeramente duro para garantizar la repetitividad de la unidad.

Las uñas de retorno seguro son un sistema de seguridad para garantizar que la corredera recupere su posición inicial en caso de un trabamiento, no como procedimiento habitual de trabajo.

OPERATING INSTRUCTION

Punching units have been designed to work with a certain angle. Any variation of this angle can cause a premature damage of the unit.

When the cam unit is mounted with interchangeable bronze plates, we recommend lubrication with light oil on a regular basis.

When replacing the worn plates by new ones it is necessary to verify that the seat of all pieces is correct and to make their adjustment if necessary.

Maximum force values must be observed according to the catalogue sheet. Effects must be concerted on the shaft head surface.

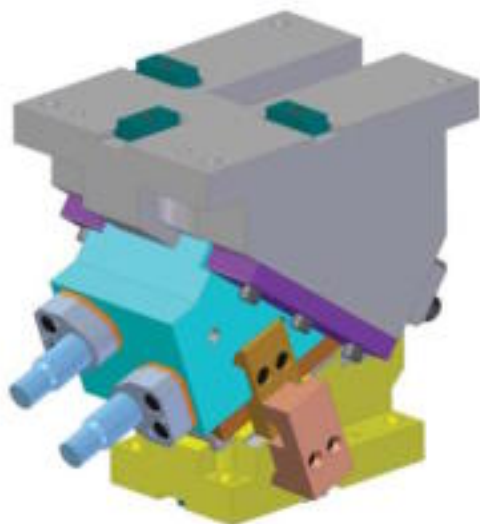
Side efforts must be avoided.

Both coil and gas springs are placed in the unit to guarantee that the unit returns to its starting point, and no to extract the unit in the die.

Avoid particles and punchings that can damage sliding surfaces.

It is recommended that the cam unit works with strong adjustment in order to guarantee the repetitive work of the unit.

Safe return nails are a security system to guarantee that the sliding return basic to its initial position in case of bonding, not as an usual procedure.



La modificación de cualquier pieza de la unidad de punzonado sin el consentimiento del fabricante representa la pérdida de la garantía de dicha unidad.

Se recomienda la reparación o sustitución del resorte de gas según la hoja de condiciones de utilización del resorte de gas.

Se recomienda una reserva de carrera del 10% (Ver condiciones de utilización de los resortes de gas).

Modification of any piece of the punching unit without Azol's consent might represent losing guaranty.

Repair or replacement of gas springs is advisable according to the specification sheets and operating instructions.

A 10% stroke length allowance is recommended (see conditions of use of the gas springs) .

MEJORAS DE PRODUCTO

En las unidades de punzonado Azol-Gas bajo norma , a partir de mayo de 2001, damos un salto cualitativo, ofreciendo a nuestros clientes la posibilidad de adquirirlos, con unas mejoras que alárgan la vida útil de las unidades.

Sustituimos zonas de deslizamiento de acero por bronce con grafito y cilindro por muelle.

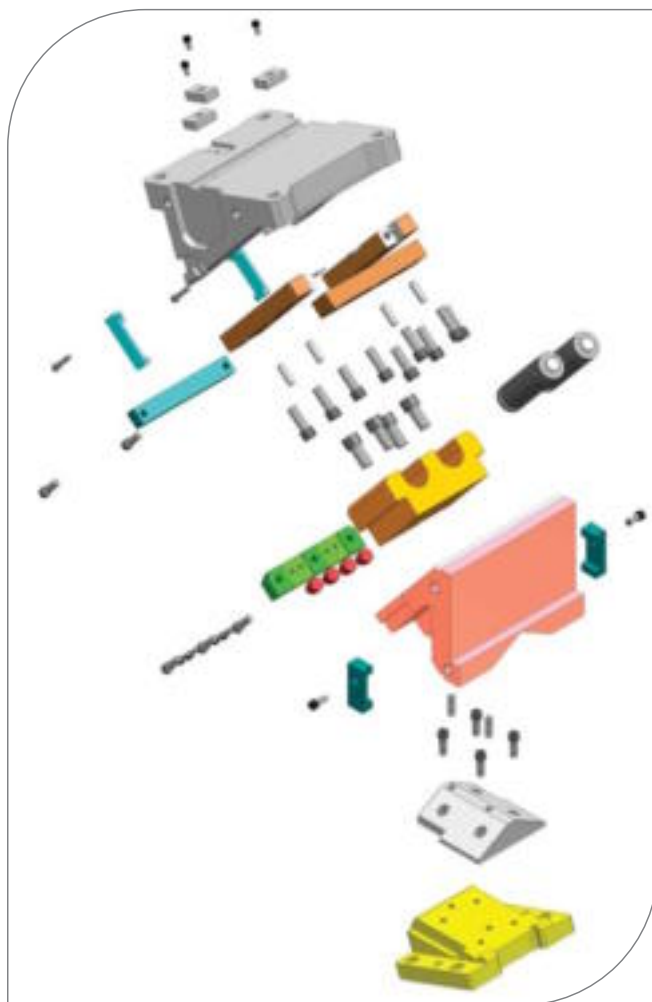
Azol-Gas se reserva el derecho a efectuar cambios de diseño.

PRODUCT IMPROVEMENT

From may 2001, on the standard Azol-Gas cam units, we perform a quality step ahead, giving our customers the chance to get these cams with some improvements that will for sure extend their working life.

We substitute the sliding steel parts to bronze with graphite and also we substitute the spring to a gas springs.

Azol-Gas keeps its right to make any desing modification.



EJEMPLO DE PEDIDO - ORDER EXAMPLE

| | |
|-------------------------|--|
| AZOL - 100 X 39 -40° A | Acero y muelle Steel and spring |
| AZOL - 100 X 39 -40° R | Carro con regletas de Bronce + Grafito Cam with Bronze + Graphite plates |
| AZOL - 100 X 39 -40° AC | Carro con cilindro - (sustituyendo al muelle) Cam with gas spring - (substituying a spring) |
| AZOL - 100 X 39 -40° RC | Carro con regletas de Bronce + Grafito+ Cilindro Cam with Bronze + Graphite + Gas spring |

CARROS SUSPENDIDOS

La siguiente es una nueva línea de carros diseñada para:

- a) grandes fuerzas
- b) trabajos en grandes producciones
- c) facilitar el diseño de los propios troqueles.

CARACTERISTICAS

Las características básicas de estas unidades son las mismas que las de las estándar. Sin embargo, esta nueva serie está diseñada para grandes fuerzas, especialmente para cabezales grandes, de 150 mm. de ancho o mayores.

- a) Estas grandes unidades tienen correderas con "dobles regletas", y el ángulo de la corredera inferior es de 120°. Estos dos aspectos las hacen ser idóneas para grandes fuerzas de trabajo y troqueles de gran producción.

Estos carros tienen también las características generales de todos nuestros carros estándar:

- a) Las Superficies de deslizamiento con grafito, unido a una lubricación periódica adicional, aseguran el funcionamiento del carro durante la vida útil del troquel.
- b) El retroceso forzoso hace que el carro vuelva a su posición original incluso cuando alguna pieza se quede atascada.

AERIAL CAM UNIT

The following is a new line of cam units which is designated for:

- a) heavy duty use
- b) high volume production use
- c) easy designing of dies themselves.

FEATURES

The basic features of these units are the same as the standard types. In addition, however, this new series is designated for heavy duty use, especially for a large mounting face, of 150 mm. width and larger.

- a) These larger sized units have cam sliding plates with "double wear plates", and the angle of the cam bottom plate is 120°. These two points make them suitable for higher working force and high volume production dies.

These cam units have also the general features of all our standard cam units:

- a) Sliding surfaces with graphite, in addition to lubrication on a regular basis, let you achieve the best working performance of the cam unit along the life of the die.
- b) The positive return brings a cam slide to its original position even when a panel sticks to the die.

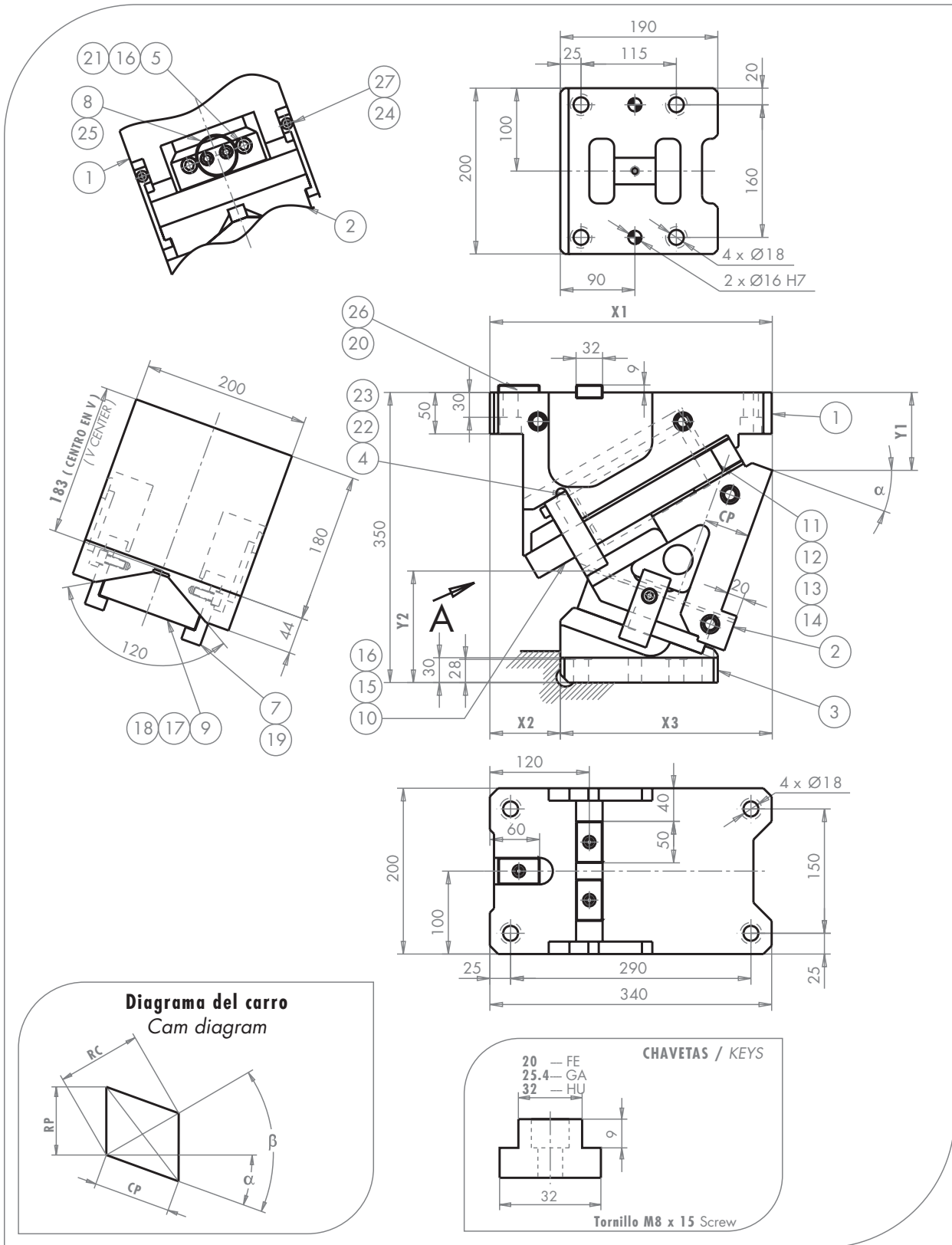


RESUMEN SUMMARY

71 - D

| MODELO MODEL | Carrera (mm) Stroke | Fuerza trabajo (KN) Working force | Superficie de sujeción del macho Space for punch mount | | Fuerza elástica de retorno (N) Spring return force | Dimensiones en posición final de trabajo Overall dimension | | | Peso (kg) Weight | |
|-----------------------------|---------------------------|---|---|--------------------------|--|---|--------------------------|----------------------------|------------------------|-------|
| | | | Anchura (mm) Width | Altura (mm) Height | | Anchura (mm) Width | Altura (mm) Height | Longitud (mm) Length | | |
| AZOL - 3K - 200 x 38 - 0° | 38.6 | 117.6 | 200 | 180 | 3570 | 200 | 350 | 340 | 95.2 | |
| AZOL - 3K - 200 x 42 - 5° | 42.6 | | | | | | | | 95.0 | |
| AZOL - 3K - 200 x 46 - 10° | 46.7 | | | | | | | | 94.8 | |
| AZOL - 3K - 200 x 50 - 15° | 50.9 | | | | | | | | 93.5 | |
| AZOL - 3K - 200 x 55 - 20° | 55.3 | | | | | | | | 92.9 | |
| AZOL - 3K - 200 x 65 - 30° | 65.1 | | | | | | | | 92.9 | |
| AZOL - 3K - 200 x 77 - 40° | 77.1 | | | | | | | | 94.4 | |
| AZOL - 3K - 200 x 93 - 50° | 93.3 | | | | | | | | 346 | 93.9 |
| AZOL - 3K - 200 x 120 - 60° | 120.0 | | | | | | | | 385 | 97.5 |
| AZOL - 3K - 300 x 38 - 0° | 38.6 | | | | | | | | 196 | 300 |
| AZOL - 3K - 300 x 42 - 5° | 42.6 | 136.1 | | | | | | | | |
| AZOL - 3K - 300 x 46 - 10° | 46.7 | 135.9 | | | | | | | | |
| AZOL - 3K - 300 x 50 - 15° | 50.9 | 133.2 | | | | | | | | |
| AZOL - 3K - 300 x 55 - 20° | 55.3 | 131.7 | | | | | | | | |
| AZOL - 3K - 300 x 65 - 30° | 65.1 | 131.2 | | | | | | | | |
| AZOL - 3K - 300 x 77 - 40° | 77.1 | 133.5 | | | | | | | | |
| AZOL - 3K - 300 x 93 - 50° | 93.3 | 346 | 131.1 | | | | | | | |
| AZOL - 3K - 300 x 120 - 60° | 120.0 | 385 | 136.3 | | | | | | | |
| AZOL - 3K - 400 x 38 - 0° | 38.6 | 245 | 400 | 180 | 7140 | 400 | 350 | 340 | | |
| AZOL - 3K - 400 x 42 - 5° | 42.6 | | | | | | | | 189.5 | |
| AZOL - 3K - 400 x 46 - 10° | 46.7 | | | | | | | | 188.2 | |
| AZOL - 3K - 400 x 50 - 15° | 50.9 | | | | | | | | 186.3 | |
| AZOL - 3K - 400 x 55 - 20° | 55.3 | | | | | | | | 185.5 | |
| AZOL - 3K - 400 x 65 - 30° | 65.1 | | | | | | | | 186.0 | |
| AZOL - 3K - 400 x 77 - 40° | 77.1 | | | | | | | | 192.1 | |
| AZOL - 3K - 400 x 93 - 50° | 93.3 | | | | | | | | 346 | 192.0 |
| AZOL - 3K - 400 x 120 - 60° | 120.0 | | | | | | | | 385 | 201.3 |
| AZOL - 3K - 500 x 38 - 0° | 38.6 | | | | | | | | 313.6 | 500 |
| AZOL - 3K - 500 x 42 - 5° | 42.6 | 220.6 | | | | | | | | |
| AZOL - 3K - 500 x 46 - 10° | 46.7 | 219.0 | | | | | | | | |
| AZOL - 3K - 500 x 50 - 15° | 50.9 | 216.5 | | | | | | | | |
| AZOL - 3K - 500 x 55 - 20° | 55.3 | 215.3 | | | | | | | | |
| AZOL - 3K - 500 x 65 - 30° | 65.1 | 216.3 | | | | | | | | |
| AZOL - 3K - 500 x 77 - 40° | 77.1 | 220.6 | | | | | | | | |
| AZOL - 3K - 500 x 93 - 50° | 93.3 | 346 | 220.3 | | | | | | | |
| AZOL - 3K - 500 x 120 - 60° | 120.0 | 385 | 236.7 | | | | | | | |
| AZOL - 3K - 600 x 38 - 0° | 38.6 | 392 | 600 | 180 | 14280 | 600 | 350 | 340 | | |
| AZOL - 3K - 600 x 42 - 5° | 42.6 | | | | | | | | 277.9 | |
| AZOL - 3K - 600 x 46 - 10° | 46.7 | | | | | | | | 274.3 | |
| AZOL - 3K - 600 x 50 - 15° | 50.9 | | | | | | | | 272.5 | |
| AZOL - 3K - 600 x 55 - 20° | 55.3 | | | | | | | | 267.0 | |
| AZOL - 3K - 600 x 65 - 30° | 65.1 | | | | | | | | 276.8 | |
| AZOL - 3K - 600 x 77 - 40° | 77.1 | | | | | | | | 285.4 | |
| AZOL - 3K - 600 x 93 - 50° | 93.3 | | | | | | | | 346 | 283.7 |
| AZOL - 3K - 600 x 120 - 60° | 120.0 | | | | | | | | 385 | 295.8 |

CARROS NORMALIZADOS SUSPENDIDOS / NORMALIZED FLYING CAM UNITS



EJEMPLO DE PEDIDO / ORDER EXAMPLE

AZOL - 3K - 200 x 77 - 40 - HU - RC

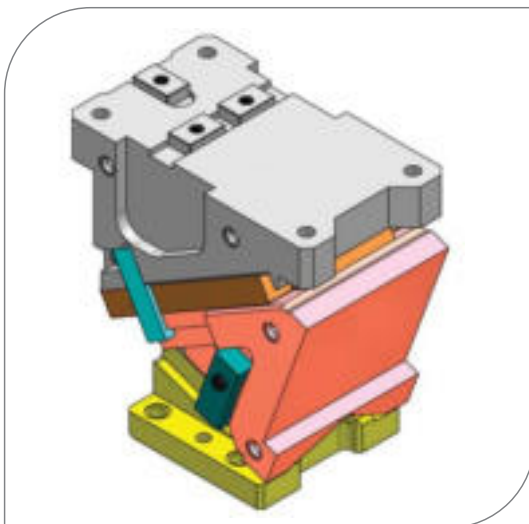
| | | | |
|------------------------|------------------------|------------------------------------|----------------------------------|
| Modelo Model | Angulo Angle | Tipo de chaveta Key type | Tipo de carro Cam type |
|------------------------|------------------------|------------------------------------|----------------------------------|

En caso de no precisar el tipo, AZOLGAS lo servira tal y como lo indica el dibujo y del tipo R
 If there is not indication about the cam type, AZOLGAS will supply as it's showed on drawing, R type.

| MODELOS | α | X1 | X2 | X3 | Y1 | Y2 | β | CP | RP | RC |
|--------------------|----------|--------|-----|--------|--------|-------|---------|-------|-------|----|
| AZOL-3K-200x38-0 | 0 | 313.00 | 138 | 175.00 | 58.00 | 102.0 | 50 | 38.6 | 45.9 | 60 |
| AZOL-3K-200x42-5 | 5 | 320.64 | 125 | 195.64 | 64.34 | 110.8 | 50 | 42.6 | 46.1 | 60 |
| AZOL-3K-200x46-10 | 10 | 313.08 | 115 | 216.08 | 72.47 | 119.1 | 50 | 46.7 | 46.7 | 60 |
| AZOL-3K-200x50-15 | 15 | 336.17 | 100 | 236.17 | 82.37 | 126.8 | 50 | 50.9 | 47.6 | 60 |
| AZOL-3K-200x55-20 | 20 | 340.76 | 85 | 255.76 | 94.00 | 133.9 | 50 | 55.3 | 48.9 | 60 |
| AZOL-3K-200x65-30 | 30 | 347.83 | 55 | 292.83 | 112.25 | 155.7 | 50 | 65.1 | 53.0 | 60 |
| AZOL-3K-200x77-40 | 40 | 351.17 | 25 | 326.17 | 136.66 | 173.9 | 50 | 77.1 | 60.0 | 60 |
| AZOL-3K-200x93-50 | 50 | 348.77 | -6 | 354.77 | 161.49 | 192.8 | 50 | 93.3 | 71.5 | 60 |
| AZOL-3K-200x120-60 | 60 | 332.75 | -45 | 377.75 | 195.83 | 202.1 | 60 | 120.0 | 103.9 | 60 |

| α | Peso (Kg) Weight | Fuerza de trabajo (kN) Working force |
|----------|---------------------|---|
| 0 | 95.2 | 117.6 |
| 5 | 95.0 | 117.6 |
| 10 | 94.8 | 117.6 |
| 15 | 93.5 | 117.6 |
| 20 | 92.9 | 117.6 |
| 30 | 92.9 | 117.6 |
| 40 | 94.4 | 117.6 |
| 50 | 93.9 | 117.6 |
| 60 | 97.5 | 117.6 |

| | MODELO RC | | MODELO R - ESTANDAR | | | | | |
|-------------------|--|---------------------------------|-----------------------------------|------------------------------------|---|----------------------------------|-------------------------------------|--------------------------------|
| | Modelo con cilindro de gas Gas spring model | | Modelo con muelle Spring model | | | | | |
| | Fuerza inicial (N) Initial force | Fuerza final (N) Final force | Dimensiones (mm) Dimensions | | | | | |
| AZOL-3K-200x__-__ | 7500 | 11850 | \emptyset | Long. libre (mm) Free long (mm) | Long. inicial (mm) Initial long (mm) | F. inicial (N) Initial F. (N) | Long. final (mm) Final long (mm) | F. final (N) Final long (N) |
| | | | 50 | 229 | 219 | 510 | 159 | 3570 |



| | |
|-----------|-----------------------------------|
| FE | Chaveta de 20 mm x 50 mm |
| FE | 20 mm x 50 mm key |
| GA | Chaveta de 25.4 mm x 50 mm |
| GA | 25.4 mm x 50 mm key |
| HU | Chaveta de 32 mm x 50 mm |
| HU | 32 mm x 50 mm key |

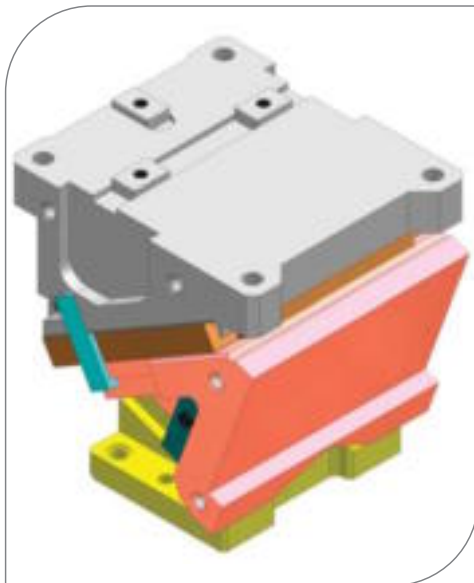
| | |
|-----------|---|
| R | Carro con regletas de Bronce + Grafito Cam with Bronze + Graphite plates |
| RC | Carro con regletas de Bronce + Grafito + Cilindro Cam with Bronze + Graphite + Gas spring |

| Nº | DENOMINACION DESCRIPTION | Cantidad Quantity |
|----|---|----------------------|
| 1 | SopORTE / Holder | 1 |
| 2 | Corredera / Slide | 1 |
| 3 | Manivela motriz / Driver | 1 |
| 4 | Bloque guía / Guide block | 1 |
| 5 | Placa de tope / Stopper plate | 2 |
| 7 | Retroceso / Positive return follower | 2 |
| 8 | Muelle / Spring | 1 |
| 9 | Placa corredera inferior / Cam bottom slide plate | 1 |
| 10 | Tope corredera / Slider stopper | 1 |
| 11 | Placa superior - A / Upper plate - A | 2 |
| 12 | Placa superior - B / Upper plate - B | 1 |
| 13 | Tornillo / Screw | 8 |
| 14 | Pasador / Pin | 4 |
| 15 | Tornillo / Screw | 2 |
| 16 | Arandela de seguridad / Safety washer | 2 |
| 17 | Tornillo / Screw | 4 |
| 18 | Pasador / Pin | 2 |
| 19 | Tornillo / Screw | 2 |
| 20 | Tornillo / Screw | 3 |
| 21 | Tornillo / Screw | 2 |
| 22 | Tope amortiguador / Cushioning top | 1 |
| 23 | Tornillo / Screw | 2 |
| 24 | Tornillo / Screw | 2 |
| 25 | Tornillo / Screw | 2 |
| 26 | Chaveta / Key | 3 |
| 27 | Placa de seguridad / Safety plate | 2 |

| MODELOS | α | X1 | X2 | X3 | Y1 | Y2 | β | CP | RP | RC |
|--------------------|----------|--------|-----|--------|--------|-------|---------|-------|-------|----|
| AZOL-3K-300x38-0 | 0 | 313.00 | 138 | 175.00 | 58.00 | 102.0 | 50 | 38.6 | 45.9 | 60 |
| AZOL-3K-300x42-5 | 5 | 320.64 | 125 | 195.64 | 64.34 | 110.8 | 50 | 42.6 | 46.1 | 60 |
| AZOL-3K-300x46-10 | 10 | 313.08 | 115 | 216.08 | 72.47 | 119.1 | 50 | 46.7 | 46.7 | 60 |
| AZOL-3K-300x50-15 | 15 | 336.17 | 100 | 236.17 | 82.37 | 126.8 | 50 | 50.9 | 47.6 | 60 |
| AZOL-3K-300x55-20 | 20 | 340.76 | 85 | 255.76 | 94.00 | 133.9 | 50 | 55.3 | 48.9 | 60 |
| AZOL-3K-300x65-30 | 30 | 347.83 | 55 | 292.83 | 112.25 | 155.7 | 50 | 65.1 | 53.0 | 60 |
| AZOL-3K-300x77-40 | 40 | 351.17 | 25 | 326.17 | 136.66 | 173.9 | 50 | 77.1 | 60.0 | 60 |
| AZOL-3K-300x93-50 | 50 | 348.77 | -6 | 354.77 | 161.49 | 192.8 | 50 | 93.3 | 71.5 | 60 |
| AZOL-3K-300x120-60 | 60 | 332.75 | -45 | 377.75 | 195.83 | 202.1 | 60 | 120.0 | 103.9 | 60 |

| α | Peso (Kg) Weight | Fuerza de trabajo (KN) Working force |
|----------|---------------------|---|
| 0 | 137.4 | 196 |
| 5 | 136.1 | 196 |
| 10 | 135.9 | 196 |
| 15 | 133.2 | 196 |
| 20 | 131.7 | 196 |
| 30 | 131.2 | 196 |
| 40 | 133.5 | 196 |
| 50 | 131.1 | 196 |
| 60 | 136.3 | 196 |

| | MODELO RC | | MODELO R - ESTANDARD | | | | | |
|---------------------|--|---------------------------------|-----------------------------------|------------------------------------|---|----------------------------------|-------------------------------------|--------------------------------|
| | Modelo con cilindro de gas Gas spring model | | Modelo con muelle Spring model | | | | | |
| | Fuerza inicial (N) Initial force | Fuerza final (N) Final force | Dimensiones (mm) Dimensions | | | | | |
| AZOL-3K-300x___-___ | 7500 | 11850 | \emptyset | Long. libre (mm) Free long (mm) | Long. inicial (mm) Initial long (mm) | F. inicial (N) Initial F. (N) | Long. final (mm) Final long (mm) | F. final (N) Final long (N) |
| | | | 50 | 229 | 219 | 1020 | 159 | 7140 |



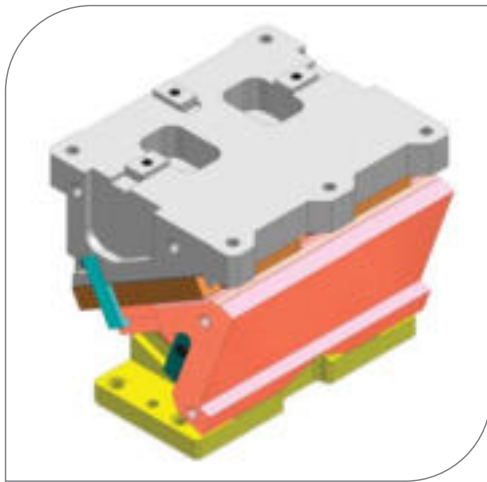
| Nº | DENOMINACION DESCRIPTION | Cantidad Quantity |
|----|---|----------------------|
| 1 | Soporte / Holder | 1 |
| 2 | Corredera / Slide | 1 |
| 3 | Manivela motriz / Driver | 1 |
| 4 | Bloque guía / Guide block | 1 |
| 5 | Placa de tope / Stopper plate | 2 |
| 7 | Retroceso / Positive return follower | 2 |
| 8 | Muelle / Spring | 2 |
| 9 | Placa corredera inferior / Cam bottom slide plate | 1 |
| 10 | Tope corredera / Slider stopper | 1 |
| 11 | Placa superior - A / Upper plate - A | 2 |
| 12 | Placa superior - B / Upper plate - B | 1 |
| 13 | Tornillo / Screw | 8 |
| 14 | Pasador / Pin | 4 |
| 15 | Tornillo / Screw | 2 |
| 16 | Arandela de seguridad / Safety washer | 6 |
| 17 | Tornillo / Screw | 4 |
| 18 | Pasador / Pin | 2 |
| 19 | Tornillo / Screw | 2 |
| 20 | Tornillo / Screw | 3 |
| 21 | Tornillo / Screw | 2 |
| 22 | Tope amortiguador / Cushioning top | 1 |
| 23 | Tornillo / Screw | 2 |
| 24 | Tornillo / Screw | 2 |
| 25 | Tornillo / Screw | 2 |
| 26 | Chaveta / Key | 3 |
| 27 | Placa de seguridad / Safety plate | 2 |

| | |
|----|---|
| R | Carro con regletas de Bronce + Grafito |
| | Cam with Bronze + Graphite plates |
| RC | Carro con regletas de Bronce + Grafito + Cilindro |
| | Cam with Bronze + Graphite + Gas spring |

| MODELOS | α | X1 | X2 | X3 | Y1 | Y2 | β | CP | RP | RC |
|--------------------|----------|--------|-----|--------|--------|-------|---------|-------|-------|----|
| AZOL-3K-400x38-0 | 0 | 313.00 | 138 | 175.00 | 58.00 | 102.0 | 50 | 38.6 | 45.9 | 60 |
| AZOL-3K-400x42-5 | 5 | 320.64 | 125 | 195.64 | 64.34 | 110.8 | 50 | 42.6 | 46.1 | 60 |
| AZOL-3K-400x46-10 | 10 | 313.08 | 115 | 216.08 | 72.47 | 119.1 | 50 | 46.7 | 46.7 | 60 |
| AZOL-3K-400x50-15 | 15 | 336.17 | 100 | 236.17 | 82.37 | 126.8 | 50 | 50.9 | 47.6 | 60 |
| AZOL-3K-400x55-20 | 20 | 340.76 | 85 | 255.76 | 94.00 | 133.9 | 50 | 55.3 | 48.9 | 60 |
| AZOL-3K-400x65-30 | 30 | 347.83 | 55 | 292.83 | 112.25 | 155.7 | 50 | 65.1 | 53.0 | 60 |
| AZOL-3K-400x77-40 | 40 | 351.17 | 25 | 326.17 | 136.66 | 173.9 | 50 | 77.1 | 60.0 | 60 |
| AZOL-3K-400x93-50 | 50 | 348.77 | -6 | 354.77 | 161.49 | 192.8 | 50 | 93.3 | 71.5 | 60 |
| AZOL-3K-400x120-60 | 60 | 332.75 | -45 | 377.75 | 195.83 | 202.1 | 60 | 120.0 | 103.9 | 60 |

| α | Peso (Kg) Weight | Fuerza de trabajo (kN) Working force |
|----------|---------------------|---|
| 0 | 191.3 | 245 |
| 5 | 189.5 | 245 |
| 10 | 188.2 | 245 |
| 15 | 186.3 | 245 |
| 20 | 185.5 | 245 |
| 30 | 186.0 | 245 |
| 40 | 192.1 | 245 |
| 50 | 192.0 | 245 |
| 60 | 201.3 | 245 |

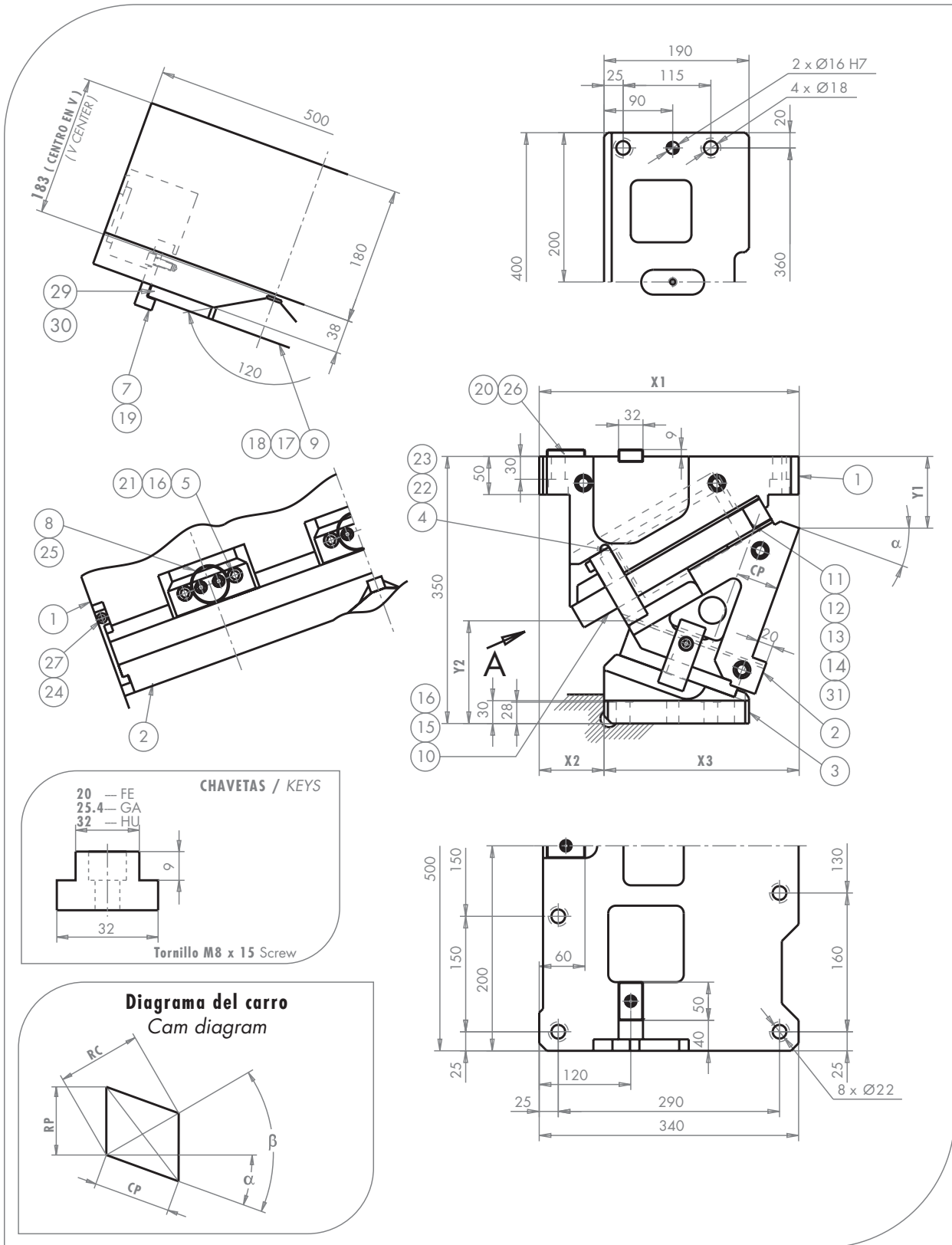
| | MODELO RC | | MODELO R - ESTANDAR | | | | | |
|-------------------|--|---------------------------------|-----------------------------------|------------------------------------|---|----------------------------------|-------------------------------------|--------------------------------|
| | Modelo con cilindro de gas Gas spring model | | Modelo con muelle Spring model | | | | | |
| | Fuerza inicial (N) Initial force | Fuerza final (N) Final force | Dimensiones (mm) Dimensions | | | | | |
| AZOL-3K-400x__-__ | 7500 | 11850 | \emptyset | Long. libre (mm) Free long (mm) | Long. inicial (mm) Initial long (mm) | F. Inicial (N) Initial F. (N) | Long. final (mm) Final long (mm) | F. final (N) Final long (N) |
| | | | 50 | 229 | 219 | 1020 | 159 | 7140 |



| Nº | DENOMINACION DESCRIPTION | Cantidad Quantity |
|----|---|----------------------|
| 1 | Soporte / Holder | 1 |
| 2 | Corredera / Slide | 1 |
| 3 | Manivela motriz / Driver | 1 |
| 4 | Bloque guia / Guide block | 1 |
| 5 | Placa de tope / Stopper plate | 2 |
| 7 | Retroceso / Positive return follower | 2 |
| 8 | Muelle / Spring | 2 |
| 9 | Placa corredera inferior / Cam bottom slide plate | 1 |
| 10 | Tope corredera / Slider stopper | 1 |
| 11 | Placa superior - A / Upper plate - A | 2 |
| 12 | Placa superior - B / Upper plate - B | 2 |
| 13 | Tornillo / Screw | 8 |
| 14 | Pasador / Pin | 4 |
| 15 | Tornillo / Screw | 2 |
| 16 | Arandela de seguridad / Safety washer | 4 |
| 17 | Tornillo / Screw | 4 |
| 18 | Pasador / Pin | 2 |
| 19 | Tornillo / Screw | 2 |
| 20 | Tornillo / Screw | 3 |
| 21 | Tornillo / Screw | 2 |
| 22 | Tope amortiguador / Cushioning top | 1 |
| 23 | Tornillo / Screw | 2 |
| 24 | Tornillo / Screw | 2 |
| 25 | Tornillo / Screw | 2 |
| 26 | Chaveta / Key | 3 |
| 27 | Placa de seguridad / Safety plate | 2 |
| 29 | Placa corredera inferior 2 / Cam bottom slide plate 2 | 2 |
| 30 | Tornillo / Screw | 6 |

| | |
|-----------|-----------------------------------|
| FE | Chaveta de 20 mm x 50 mm |
| FE | 20 mm x 50 mm key |
| GA | Chaveta de 25.4 mm x 50 mm |
| GA | 25.4 mm x 50 mm key |
| HU | Chaveta de 32 mm x 50 mm |
| HU | 32 mm x 50 mm key |

| | |
|-----------|---|
| R | Carro con regletas de Bronce + Grafito Cam with Bronze + Graphite plates |
| RC | Carro con regletas de Bronce + Grafito + Cilindro Cam with Bronze + Graphite + Gas spring |



EJEMPLO DE PEDIDO / ORDER EXAMPLE

AZOL - 3K - 500 x 77 - 40 - HU - RC

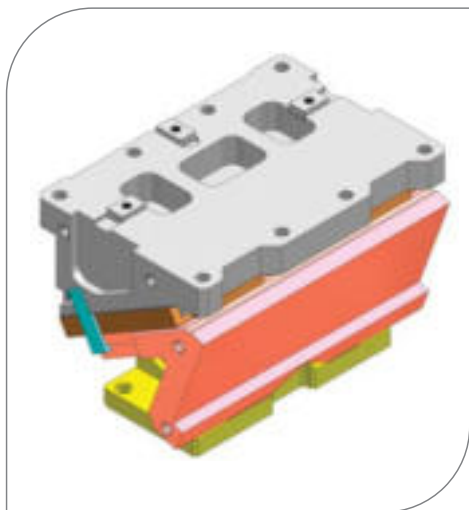
| | | | |
|-----------------|-----------------|-----------------------------|---------------------------|
| Modelo Model | Angulo Angle | Tipo de chaveta Key type | Tipo de carro Cam type |
|-----------------|-----------------|-----------------------------|---------------------------|

En caso de no precisar el tipo, AZOLGAS lo servira tal y como lo indica el dibujo y del tipo R
If there is not indication about the cam type, AZOLGAS will supply as it's showed on drawing, R type.

| MODELOS | α | X1 | X2 | X3 | Y1 | Y2 | β | CP | RP | RC |
|--------------------|----------|--------|-----|--------|--------|-------|---------|-------|-------|----|
| AZOL-3K-500x38-0 | 0 | 313.00 | 138 | 175.00 | 58.00 | 102.0 | 50 | 38.6 | 45.9 | 60 |
| AZOL-3K-500x42-5 | 5 | 320.64 | 125 | 195.64 | 64.34 | 110.8 | 50 | 42.6 | 46.1 | 60 |
| AZOL-3K-500x46-10 | 10 | 313.08 | 115 | 216.08 | 72.47 | 119.1 | 50 | 46.7 | 46.7 | 60 |
| AZOL-3K-500x50-15 | 15 | 336.17 | 100 | 236.17 | 82.37 | 126.8 | 50 | 50.9 | 47.6 | 60 |
| AZOL-3K-500x55-20 | 20 | 340.76 | 85 | 255.76 | 94.00 | 133.9 | 50 | 55.3 | 48.9 | 60 |
| AZOL-3K-500x65-30 | 30 | 347.83 | 55 | 292.83 | 112.25 | 155.7 | 50 | 65.1 | 53.0 | 60 |
| AZOL-3K-500x77-40 | 40 | 351.17 | 25 | 326.17 | 136.66 | 173.9 | 50 | 77.1 | 60.0 | 60 |
| AZOL-3K-500x93-50 | 50 | 348.77 | -6 | 354.77 | 161.49 | 192.8 | 50 | 93.3 | 71.5 | 60 |
| AZOL-3K-500x120-60 | 60 | 332.75 | -45 | 377.75 | 195.83 | 202.1 | 60 | 120.0 | 103.9 | 60 |

| α | Peso (Kg) Weight | Fuerza de trabajo (KN) Working force |
|----------|---------------------|---|
| 0 | 222.5 | 313.6 |
| 5 | 220.6 | 313.6 |
| 10 | 219.0 | 313.6 |
| 15 | 216.5 | 313.6 |
| 20 | 215.3 | 313.6 |
| 30 | 216.3 | 313.6 |
| 40 | 220.6 | 313.6 |
| 50 | 220.3 | 313.6 |
| 60 | 236.7 | 313.6 |

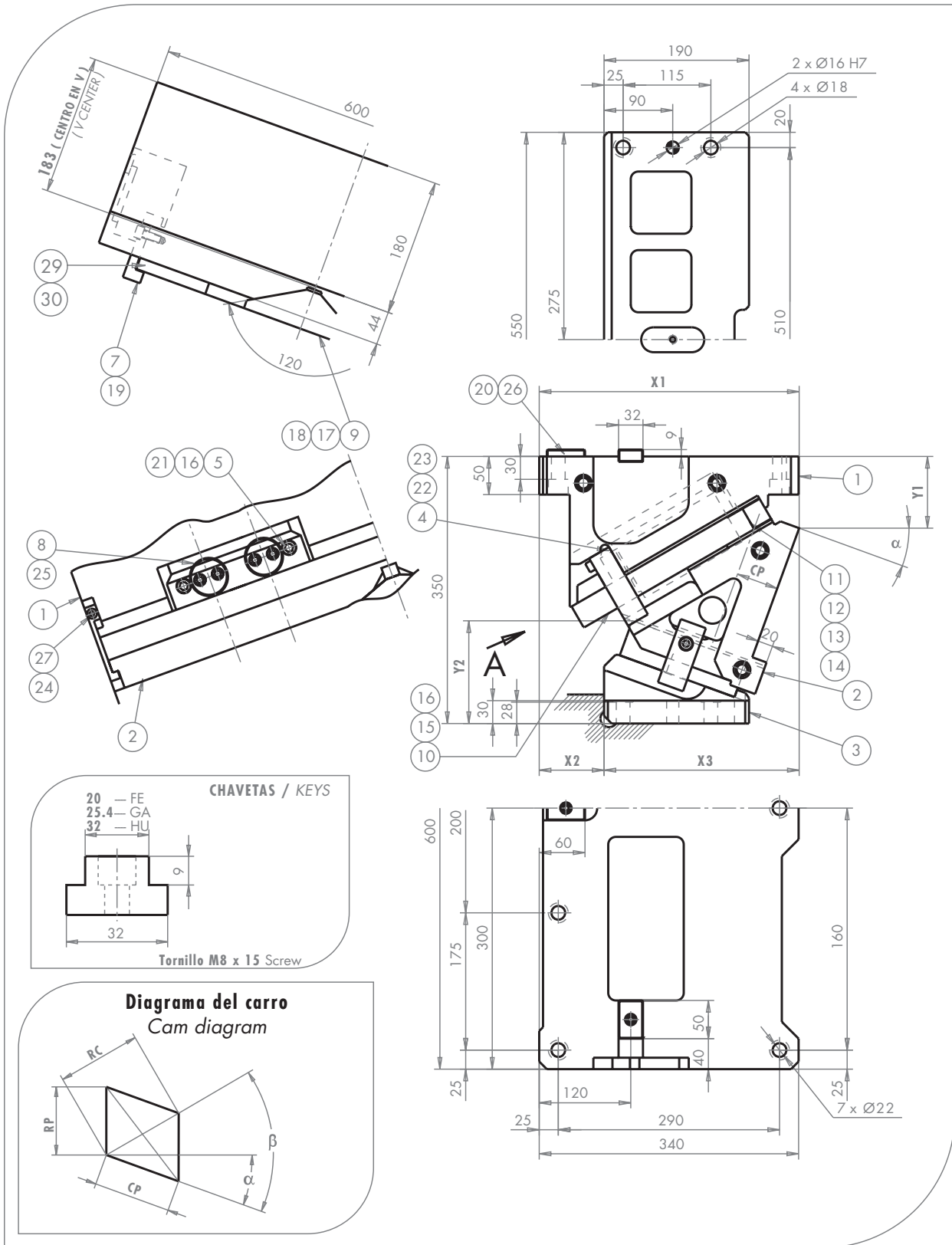
| | MODELO RC | | MODELO R - ESTANDAR | | | | | |
|--------------------|--|---------------------------------|-----------------------------------|------------------------------------|---|----------------------------------|-------------------------------------|--------------------------------|
| | Modelo con cilindro de gas Gas spring model | | Modelo con muelle Spring model | | | | | |
| | Fuerza inicial (N) Initial force | Fuerza final (N) Final force | Dimensiones (mm) Dimensions | | | | | |
| | | | \emptyset | Long. libre (mm) Free long (mm) | Long. inicial (mm) Initial long (mm) | F. inicial (N) Initial F. (N) | Long. final (mm) Final long (mm) | F. final (N) Final long (N) |
| AZOL-3K-500x___-__ | 11250 | 17775 | 50 | 229 | 219 | 1530 | 159 | 10710 |



| Nº | DENOMINACION DESCRIPTION | Cantidad Quantity |
|----|---|----------------------|
| 1 | Soporte / Holder | 1 |
| 2 | Corredera / Slide | 1 |
| 3 | Manivela motriz / Driver | 1 |
| 4 | Bloque guía / Guide block | 1 |
| 5 | Placa de tope / Stopper plate | 2 |
| 7 | Retroceso / Positive return follower | 2 |
| 8 | Muelle / Spring | 3 |
| 9 | Placa corredera inferior / Cam bottom slide plate | 1 |
| 10 | Tope corredera / Slider stopper | 1 |
| 11 | Placa superior - A / Upper plate - A | 2 |
| 12 | Placa superior - B / Upper plate - B | 3 |
| 13 | Tornillo / Screw | 8 |
| 14 | Pasador / Pin | 4 |
| 15 | Tornillo / Screw | 2 |
| 16 | Arandela de seguridad / Safety washer | 12 |
| 17 | Tornillo / Screw | 4 |
| 18 | Pasador / Pin | 2 |
| 19 | Tornillo / Screw | 2 |
| 20 | Tornillo / Screw | 3 |
| 21 | Tornillo / Screw | 2 |
| 22 | Tope amortiguador / Cushioning top | 1 |
| 23 | Tornillo / Screw | 2 |
| 24 | Tornillo / Screw | 2 |
| 25 | Tornillo / Screw | 2 |
| 26 | Chaveta / Key | 3 |
| 27 | Placa de seguridad / Safety plate | 2 |
| 29 | Placa corredera inferior 2 / Cam bottom slide plate 2 | 2 |
| 30 | Tornillo / Screw | 6 |
| 31 | Placa superior central / Upper central plate | 2 |

| | |
|-----------|-----------------------------------|
| FE | Chaveta de 20 mm x 50 mm |
| FE | 20 mm x 50 mm key |
| GA | Chaveta de 25.4 mm x 50 mm |
| GA | 25.4 mm x 50 mm key |
| HU | Chaveta de 32 mm x 50 mm |
| HU | 32 mm x 50 mm key |

| | |
|-----------|--|
| R | Carro con regletas de Bronce + Grafito |
| | Cam with Bronze + Graphite plates |
| RC | Carro con regletas de Bronce + Grafito + Cilindro |
| | Cam with Bronze + Graphite + Gas spring |



EJEMPLO DE PEDIDO / ORDER EXAMPLE

AZOL - 3K - 600 x 77 - 40 - HU - RC

| | | | |
|--------|--------|-----------------|---------------|
| Modelo | Angulo | Tipo de chaveta | Tipo de carro |
| Model | Angle | Key type | Cam type |

En caso de no precisar el tipo, AZOLGAS lo servira tal y como lo indica el dibujo y del tipo R
If there is not indication about the cam type, AZOLGAS will supply as it's showed on drawing, R type.



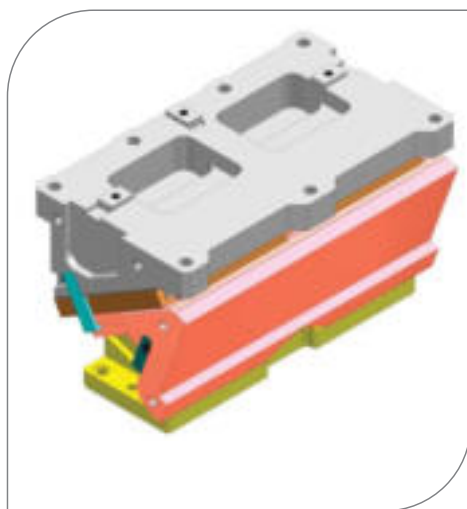
AZOL - 3K - 600 x ___ - ___ °

71 - 5/5

| MODELOS | α | X1 | X2 | X3 | Y1 | Y2 | β | CP | RP | RC |
|--------------------|----------|--------|-----|--------|--------|-------|---------|-------|-------|----|
| AZOL-3K-600x38-0 | 0 | 313.00 | 138 | 175.00 | 58.00 | 102.0 | 50 | 38.6 | 45.9 | 60 |
| AZOL-3K-600x42-5 | 5 | 320.64 | 125 | 195.64 | 64.34 | 110.8 | 50 | 42.6 | 46.1 | 60 |
| AZOL-3K-600x46-10 | 10 | 313.08 | 115 | 216.08 | 72.47 | 119.1 | 50 | 46.7 | 46.7 | 60 |
| AZOL-3K-600x50-15 | 15 | 336.17 | 100 | 236.17 | 82.37 | 126.8 | 50 | 50.9 | 47.6 | 60 |
| AZOL-3K-600x55-20 | 20 | 340.76 | 85 | 255.76 | 94.00 | 133.9 | 50 | 55.3 | 48.9 | 60 |
| AZOL-3K-600x65-30 | 30 | 347.83 | 55 | 292.83 | 112.25 | 155.7 | 50 | 65.1 | 53.0 | 60 |
| AZOL-3K-600x77-40 | 40 | 351.17 | 25 | 326.17 | 136.66 | 173.9 | 50 | 77.1 | 60.0 | 60 |
| AZOL-3K-600x93-50 | 50 | 348.77 | -6 | 354.77 | 161.49 | 192.8 | 50 | 93.3 | 71.5 | 60 |
| AZOL-3K-600x120-60 | 60 | 332.75 | -45 | 377.75 | 195.83 | 202.1 | 60 | 120.0 | 103.9 | 60 |

| α | Peso (Kg) Weight | Fuerza de trabajo (kN) Working force |
|----------|---------------------|---|
| 0 | 281.6 | 392 |
| 5 | 277.9 | 392 |
| 10 | 274.3 | 392 |
| 15 | 272.5 | 392 |
| 20 | 267.0 | 392 |
| 30 | 276.8 | 392 |
| 40 | 285.4 | 392 |
| 50 | 283.7 | 392 |
| 60 | 295.8 | 392 |

| | MODELO RC | | MODELO R - ESTANDAR | | | | | |
|--------------------|--|---------------------------------|-----------------------------------|------------------------------------|---|----------------------------------|-------------------------------------|--------------------------------|
| | Modelo con cilindro de gas Gas spring model | | Modelo con muelle Spring model | | | | | |
| | Fuerza inicial (N) Initial force | Fuerza final (N) Final force | Dimensiones (mm) Dimensions | | | | | |
| | | | \emptyset | Long. libre (mm) Free long (mm) | Long. inicial (mm) Initial long (mm) | F. inicial (N) Initial F. (N) | Long. final (mm) Final long (mm) | F. final (N) Final long (N) |
| AZOL-3K-500x___-__ | 15000 | 23900 | 50 | 229 | 219 | 2040 | 159 | 14280 |



| | |
|-----------|-----------------------------------|
| FE | Chaveta de 20 mm x 50 mm |
| FE | 20 mm x 50 mm key |
| GA | Chaveta de 25.4 mm x 50 mm |
| GA | 25.4 mm x 50 mm key |
| HU | Chaveta de 32 mm x 50 mm |
| HU | 32 mm x 50 mm key |

| | |
|-----------|---|
| R | Carro con regletas de Bronce + Grafito Cam with Bronze + Graphite plates |
| RC | Carro con regletas de Bronce + Grafito + Cilindro Cam with Bronze + Graphite + Gas spring |

| Nº | DENOMINACION DESCRIPTION | Cantidad Quantity |
|----|---|----------------------|
| 1 | Soporte / Holder | 1 |
| 2 | Corredera / Slide | 1 |
| 3 | Manivela motriz / Driver | 1 |
| 4 | Bloque guía / Guide block | 1 |
| 5 | Placa de tope / Stopper plate | 2 |
| 7 | Retroceso / Positive return follower | 2 |
| 8 | Muelle / Spring | 4 |
| 9 | Placa corredera inferior / Cam bottom slide plate | 1 |
| 10 | Tope corredera / Slider stopper | 1 |
| 11 | Placa superior - A / Upper plate - A | 2 |
| 12 | Placa superior - B / Upper plate - B | 2 |
| 13 | Tornillo / Screw | 8 |
| 14 | Pasador / Pin | 4 |
| 15 | Tornillo / Screw | 2 |
| 16 | Arandela de seguridad / Safety washer | 10 |
| 17 | Tornillo / Screw | 4 |
| 18 | Pasador / Pin | 2 |
| 19 | Tornillo / Screw | 2 |
| 20 | Tornillo / Screw | 3 |
| 21 | Tornillo / Screw | 2 |
| 22 | Tope amortiguador / Cushioning top | 1 |
| 23 | Tornillo / Screw | 2 |
| 24 | Tornillo / Screw | 2 |
| 25 | Tornillo / Screw | 2 |
| 26 | Chaveta / Key | 3 |
| 27 | Placa de seguridad / Safety plate | 2 |
| 29 | Placa corredera inferior 2 / Cam bottom slide plate 2 | 2 |
| 30 | Tornillo / Screw | 6 |

CARROS NORMALIZADOS SUSPENDIDOS / NORMALIZED FLYING CAM UNITS



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