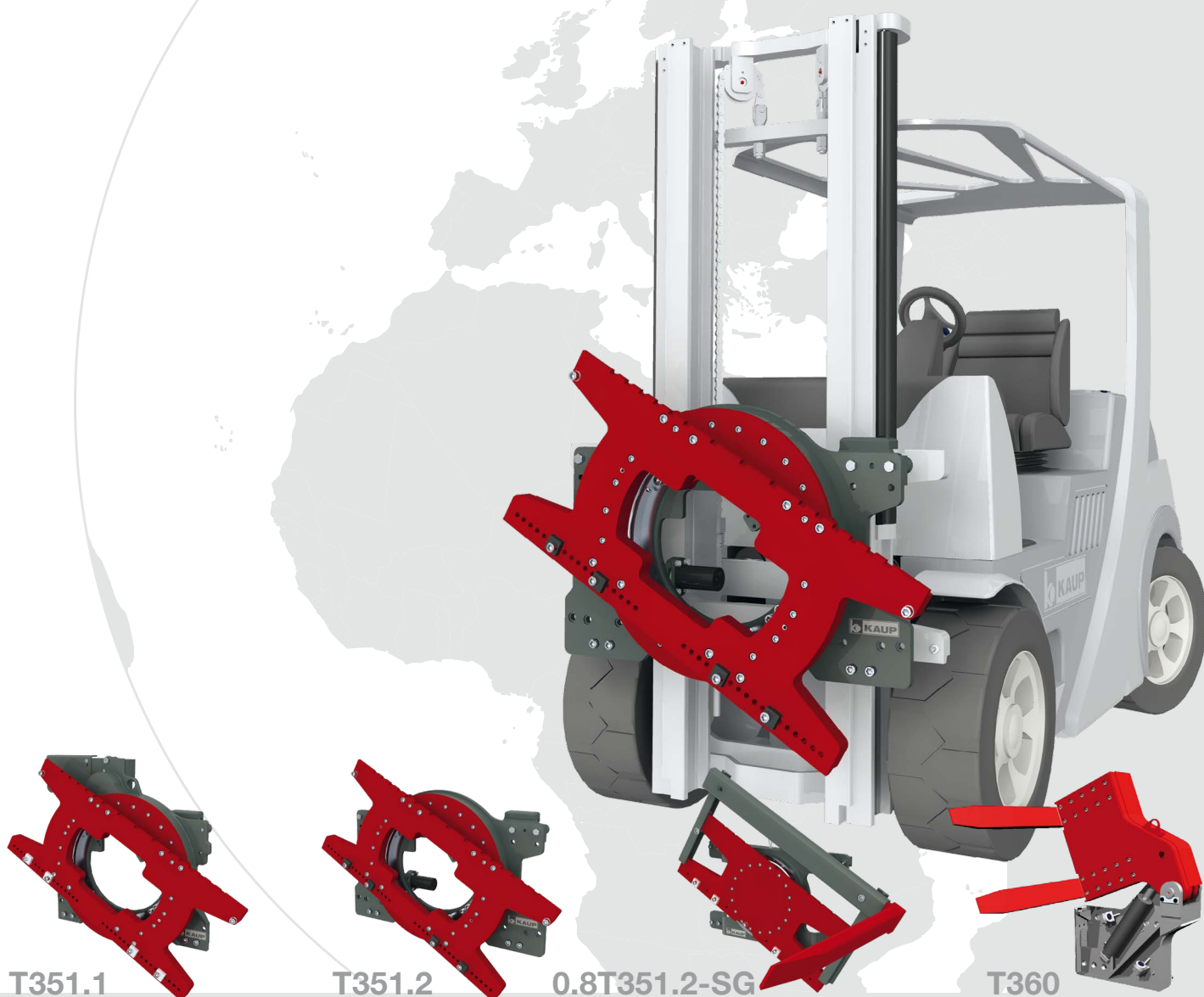




Helping hands for your Forklift truck

**Rotators T351  
T391**

**Ladle Tipplers T360**



T351.1

T351.2

0.8T351.2-SG

T360

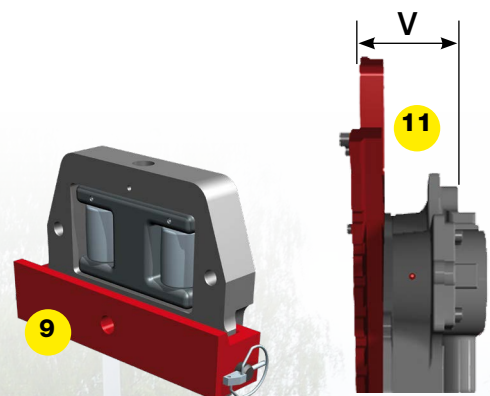
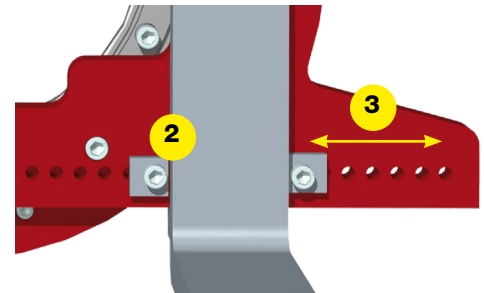
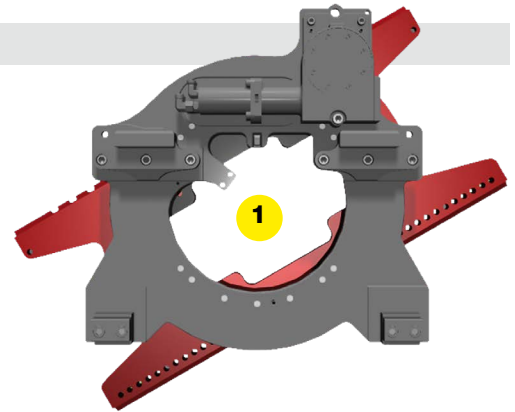
**T351 · T391 · T360**

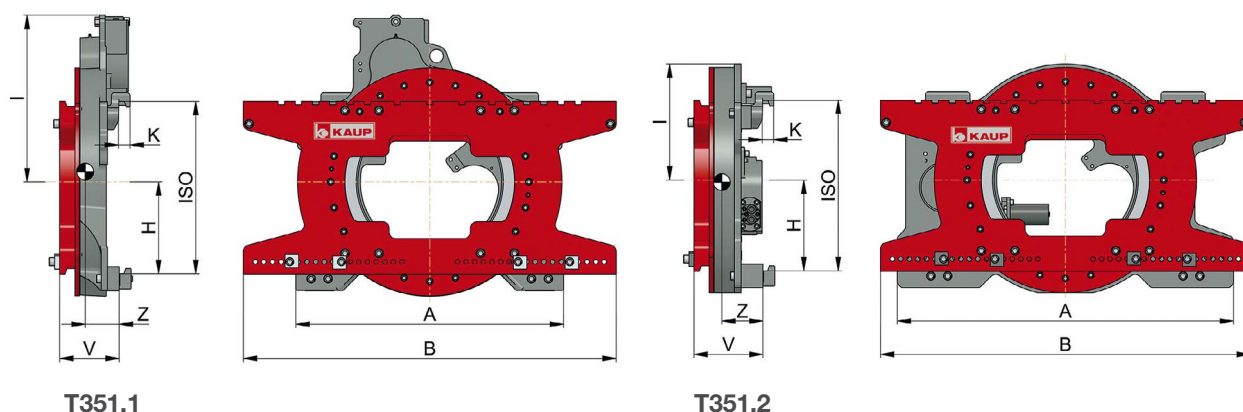
Loads carried by forklift trucks often need rotating, either to empty a container, slide material off a pallet or set a horizontal load upright. Rotators can be equipped with fork carriage and forks as well as with clamps, booms or other load handling attachments. On rotators fitted with a fork carriage, the forks must be locked as efficiently as possible close to the elbow. This will prevent them slipping off the carriage together with the load when rotated 90°.

Tapped holes are provided over the entire length of the lower fork carriage beam on KAUP rotators and the attachments are additionally supplied with eccentrically drilled square stops. The tapped holes allow of selecting any required fork spacing within the carriage width, while the stop blocks provide reliable locking of any width of fork.

An integral sideshift is available for all rotator models requiring this added capability. It does not add substantially to lost load or weight of the attachment. Sideshift casings, pistons, claws and seals are the same as installed in the standard range of KAUP high-visibility sideshifts.

1. Optimal visibility facilitates the driver in handling the goods and improves safety. The hydraulic drive is located on the side away from the operator resulting in relatively flat design which does not obstruct visibility.
2. Standard forks, commercially available, can be used. Eccentrically drilled stop blocks, which are part of the delivery, ensure safe fork adjustment.
3. Distances between forks, within the fork carriage width, can be chosen as required as the lower fork plate has relevant drillings the whole length. Eccentrically drilled stop blocks ensure that any width of fork can be secured firmly.
4. Different rotating speeds and torques with constant oil volume and constant pressure are possible with the same hydraulic motors with different capacities.
5. KAUP Rotators are driven by hydraulic motors and worm gear running through oil. 3 sizes of worm gear and 4 sizes of worm gear allow 9 different sizes of torque.
6. KAUP Rotators require little service. They are manufactured from only a few parts. Straight toothed slewing rings are standardly used for the bearings. The slewed rings are, depending on the capacity, toothed on the inner or outer side.
7. KAUP Rotators are the basis for all rotating combinations manufactured by KAUP for different customer requirements (rotating Bale Clamps, Drum Clamps, Pallet Turnover Clamps, Paper Roll Clamps, rotating Fork Clamps and rotating Fork Positioners).
8. Rotation 360° endless, rotation limited to 180° possible upon request.
9. Rotators delivered, upon request, with quick release hooks for assembly or disassembly without tools.
10. KAUP Rotators available, as standard, with capacities of up to 25 tons.
11. Optimal lost load centre ensures good residual capacities.





## Rotator T351 - 360° endless

| Model                    | Capacity<br>kg | LCD<br>mm | A<br>mm | B<br>mm      | H<br>mm | I<br>mm | K<br>mm | ISO<br>cl. | Torque<br>Md Δp=125 bar<br>Nm | Oil volume<br>required<br>per rev.<br>ltr. | V<br>mm | CofG<br>Z<br>mm | Weight<br>kg |
|--------------------------|----------------|-----------|---------|--------------|---------|---------|---------|------------|-------------------------------|--------------------------------------------|---------|-----------------|--------------|
| 0,8T 351.2 <sup>1)</sup> | 1.200          | 500       | 860     | 890<br>1.040 | 203     | 278     | 33      | 2          | 4.226                         | 5,3                                        | 156     | 94<br>97        | 165<br>175   |
| 1T 351.1                 | 1.800          | 500       | 560     | 780<br>890   | 213     | 478     | 33      | 2          | 6.013                         | 7,6                                        | 155     | 78<br>80        | 166<br>171   |
| 1T 351.2                 | 1.800          | 500       | 780     | 780<br>890   | 211     | 287     | 31      | 2          | 6.013                         | 7,6                                        | 190     | 108<br>110      | 172<br>177   |
| 2T 351.1                 | 2.500          | 500       | 790     | 1.040        | 269     | 457     | 33      | 2          | 7.700                         | 9,7                                        | 166     | 90              | 225          |
| 2T 351.2                 | 2.500          | 500       | 1.000   | 1.040        | 270     | 345     | 29      | 2          | 7.700                         | 9,7                                        | 200     | 113             | 255          |
| 2,5T 351.1               | 3.200          | 500       | 790     | 1.100        | 269     | 492     | 33      | 3          | 7.700                         | 9,7                                        | 176     | 98              | 290          |
| 2,5T 351.2               | 3.200          | 500       | 1.000   | 1.100        | 270     | 345     | 33      | 3          | 7.700                         | 9,7                                        | 205     | 122             | 305          |
| 4T 351.2                 | 5.000          | 500       | 1.010   | 1.100        | 338     | 395     | 40      | 3          | 8.950                         | 11,3                                       | 208     | 113             | 409          |
| 4,5T 351.1               | 5.000          | 500       | 870     | 1.350        | 328     | 675     | 36      | 4          | 14.823                        | 17,4                                       | 221     | 124             | 524          |
| 5T 351.2                 | 6.000          | 600       | 1.080   | 1.350        | 351     | 455     | 40      | 4          | 13.434                        | 15,7                                       | 264     | 160             | 588          |
| 6T 351.2                 | 6.500          | 600       | 1.260   | 1.350        | 351     | 455     | 40      | 4          | 17.157                        | 20,7                                       | 264     | 150             | 684          |
| 8T 351.2                 | 8.000          | 900       | 1.300   | 1.600        | 396     | 485     | 40      | 4          | 21.679                        | 18,8                                       | 304     | 172             | 1.045        |

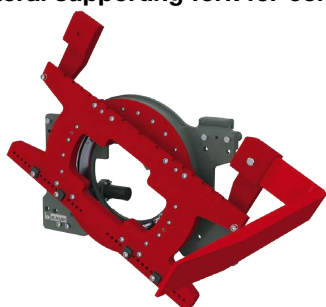
<sup>1)</sup> Fork carriage plate closed. Rotator 0,8T351.2-SG (see picture on page 54) available upon request.  
Rotators with higher rotating speeds available upon request. Other fork carriage widths available upon request.

## Optional

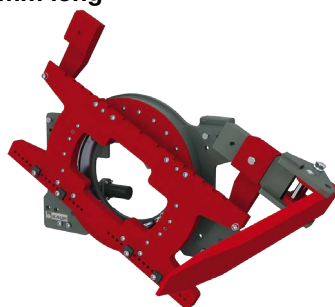
Forks for KAUP Rotators - lower brackets strengthened

Downhold with gripping claw T167

Lateral supporting fork for containers - 800 mm long

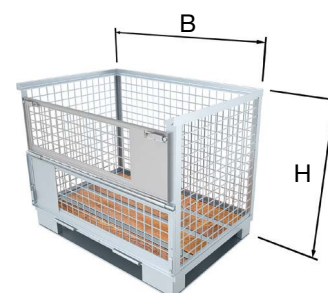


Removable

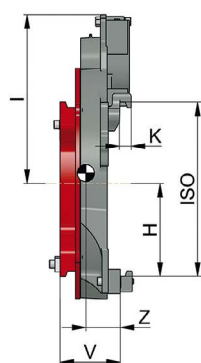


Removable and foldable

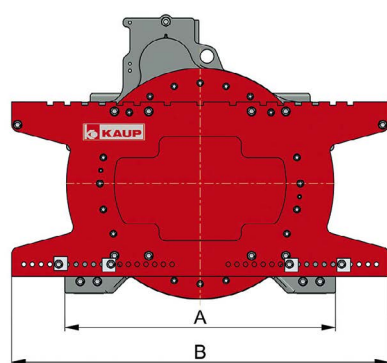
Container dimensions



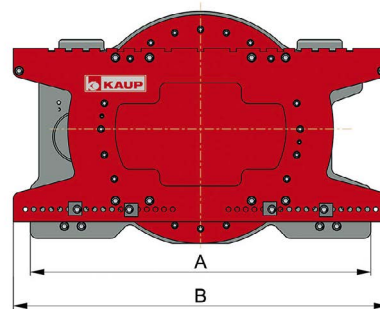
Width B min-max 800 - 1.600 mm  
Height H min-max 800 - 1.200 mm  
Lateral supporting fork for other dimensions available upon request



T351.1G



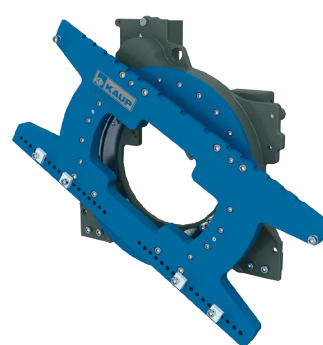
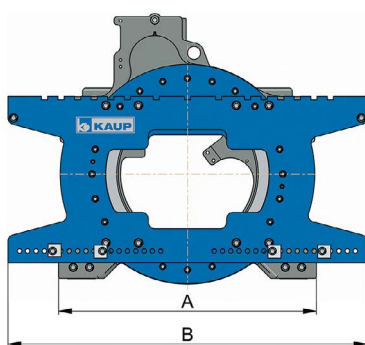
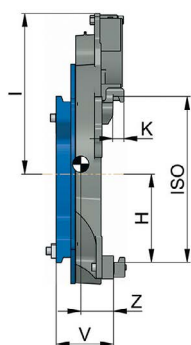
T351.2G



## Rotator T351G - 360° endless - foundry version

| Model       | Capacity<br>kg | LCD<br>mm | A<br>mm | B<br>mm | H<br>mm | I<br>mm | K<br>mm | ISO<br>cl. | Torque<br>Md Δp=125 bar<br>Nm | Oil volume<br>required<br>per rev.<br>ltr. | V<br>mm | CofG<br>Z<br>mm | Weight<br>kg |
|-------------|----------------|-----------|---------|---------|---------|---------|---------|------------|-------------------------------|--------------------------------------------|---------|-----------------|--------------|
| 1T 351.2G   | 1.800          | 500       | 817     | 890     | 203     | 288     | 33      | 2          | 6.013                         | 7,6                                        | 207     | 124             | 250          |
| 2T 351.1G   | 2.500          | 500       | 790     | 1.040   | 269     | 515     | 29      | 2          | 7.700                         | 9,7                                        | 174     | 93              | 302          |
| 2T 351.1G   | 2.500          | 500       | 790     | 1.150   | 269     | 515     | 29      | 2          | 7.700                         | 9,7                                        | 174     | 95              | 310          |
| 2,5T 351.1G | 3.200          | 500       | 790     | 1.100   | 269     | 515     | 33      | 3          | 7.700                         | 9,7                                        | 179     | 106             | 387          |
| 3,5T 351.1G | 4.000          | 500       | 880     | 1.100   | 381     | 539     | 36      | 3          | 11.815                        | 13,8                                       | 202     | 113             | 525          |
| 4T 351.1G   | 5.000          | 500       | 900     | 1.100   | 378     | 595     | 36      | 3          | 14.823                        | 17,4                                       | 221     | 120             | 575          |
| 4,5T 351.1G | 5.000          | 500       | 900     | 1.350   | 328     | 695     | 40      | 4          | 14.823                        | 17,4                                       | 231     | 129             | 670          |
| 5T 351.2G   | 6.000          | 600       | 1.080   | 1.350   | 351     | 460     | 40      | 4          | 13.434                        | 15,7                                       | 275     | 167             | 725          |
| 6T 351.2G   | 6.500          | 600       | 1.260   | 1.350   | 351     | 460     | 40      | 4          | 17.157                        | 20,7                                       | 275     | 155             | 842          |
| 8T 351.2G   | 8.000          | 900       | 1.300   | 1.600   | 396     | 480     | 40      | 4          | 21.679                        | 18,8                                       | 304     | 175             | 1.080        |

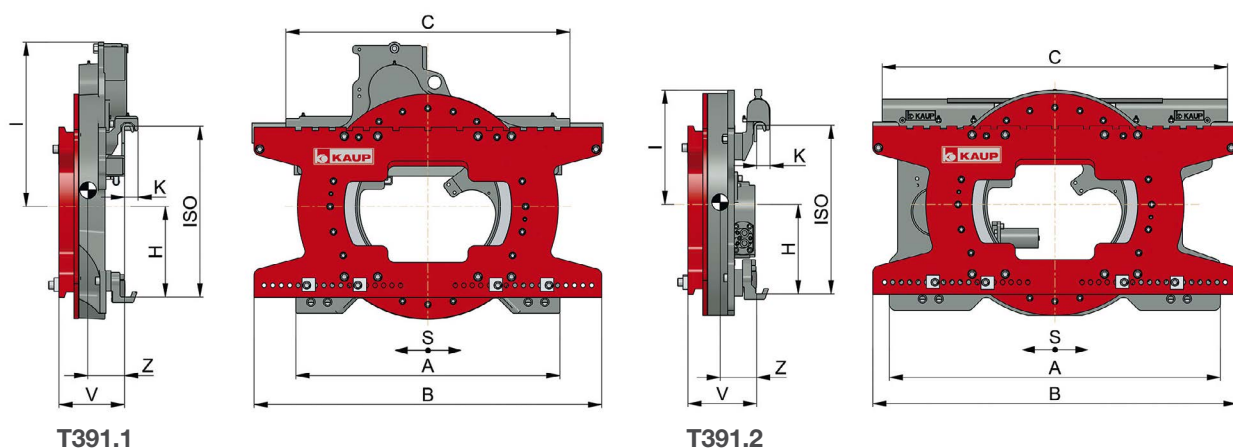
Dust proof versions and foundry rotators up to 40 T upon request. Other fork carriage widths available upon request. Rotators with higher rotating speeds available upon request.



## Rotator T351.1S / T351.1.3S - 360° endless - fishing version

| Model         | Capacity<br>kg | LCD<br>mm | A<br>mm | B<br>mm | H<br>mm | I<br>mm | K<br>mm | ISO<br>cl. | Torque<br>Md Δp=125 bar<br>Nm | Oil volume<br>required<br>per rev.<br>ltr. | V<br>mm | CofG<br>Z<br>mm | Weight<br>kg |
|---------------|----------------|-----------|---------|---------|---------|---------|---------|------------|-------------------------------|--------------------------------------------|---------|-----------------|--------------|
| 1T 351.1S     | 1.800          | 500       | 560     | 890     | 213     | 478     | 33      | 2          | 6.013                         | 7,6                                        | 155     | 83              | 180          |
| 2T 351.1S     | 2.500          | 500       | 790     | 1.040   | 269     | 515     | 29      | 2          | 7.700                         | 9,7                                        | 166     | 90              | 225          |
| 2,5T 351.1S   | 3.200          | 500       | 790     | 1.100   | 269     | 515     | 33      | 3          | 7.700                         | 9,7                                        | 177     | 98              | 290          |
| 1T 351.1.3S   | 1.800          | 500       | 560     | 890     | 213     | 478     | 33      | 2          | 6.013                         | 7,6                                        | 155     | 83              | 180          |
| 2T 351.1.3S   | 2.500          | 500       | 790     | 1.040   | 269     | 515     | 29      | 2          | 7.700                         | 9,7                                        | 166     | 90              | 225          |
| 2,5T 351.1.3S | 3.200          | 500       | 790     | 1.100   | 269     | 515     | 33      | 3          | 7.700                         | 9,7                                        | 177     | 98              | 290          |

Rotators with higher rotating speeds available upon request.



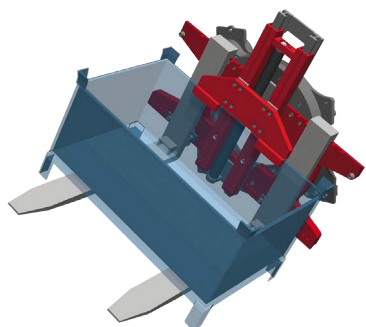
## Rotator T391 - 360° endless

| Model      | Capacity<br>kg | LCD<br>mm | S<br>mm | A<br>mm | B<br>mm | C<br>mm | H<br>mm | I<br>mm | K<br>mm | ISO<br>cl. | Torque<br>Md Δp=<br>125 bar<br>Nm | Oil volume<br>required<br>per rev.<br>ltr. | V<br>mm | CofG<br>Z<br>mm | Weight<br>kg |
|------------|----------------|-----------|---------|---------|---------|---------|---------|---------|---------|------------|-----------------------------------|--------------------------------------------|---------|-----------------|--------------|
| 1T 391.2   | 1.800          | 500       | ± 100   | 780     | 780     | 858     | 213     | 294     | 32      | 2          | 6.013                             | 7,6                                        | 192     | 99              | 199          |
|            |                |           |         |         | 890     |         |         |         |         |            |                                   |                                            |         | 101             | 205          |
| 2T 391.1   | 2.500          | 500       | ± 100   | 790     | 1.040   | 858     | 269     | 492     | 32      | 2          | 7.700                             | 9,7                                        | 172     | 90              | 255          |
| 2T 391.2   | 2.500          | 500       | ± 100   | 1.000   | 1.040   | 950     | 270     | 345     | 32      | 2          | 7.700                             | 9,7                                        | 208     | 104             | 283          |
| 2,5T 391.1 | 3.200          | 500       | ± 100   | 790     | 1.100   | 850     | 269     | 492     | 40      | 3          | 7.700                             | 9,7                                        | 198     | 113             | 310          |
| 2,5T 391.2 | 3.200          | 500       | ± 100   | 1.000   | 1.100   | 1.043   | 270     | 345     | 40      | 3          | 7.700                             | 9,7                                        | 208     | 110             | 350          |
| 4T 391.2   | 5.000          | 500       | ± 100   | 1.010   | 1.100   | 1.010   | 339     | 395     | 40      | 3          | 8.950                             | 11,3                                       | 215     | 113             | 425          |
| 4,5T 391.1 | 5.000          | 500       | ± 160   | 1.110   | 1.350   | 940     | 378     | 675     | 49      | 4          | 14.823                            | 17,4                                       | 229     | 123             | 595          |
| 5T 391.2   | 6.000          | 600       | ± 160   | 1.240   | 1.350   | 1.260   | 345     | 455     | 50      | 4          | 13.434                            | 15,7                                       | 264     | 144             | 688          |
| 6T 391.2   | 6.500          | 600       | ± 160   | 1.260   | 1.350   | 1.260   | 345     | 455     | 50      | 4          | 17.157                            | 20,7                                       | 264     | 138             | 790          |
| 8T 391.2   | 8.000          | 900       | ± 160   | 1.300   | 1.600   | 1.700   | 396     | 480     | 54      | 4          | 21.679                            | 18,8                                       | 304     | 164             | 1.110        |

Rotators with higher rotating speeds available upon request. Other fork carriage widths available upon request.

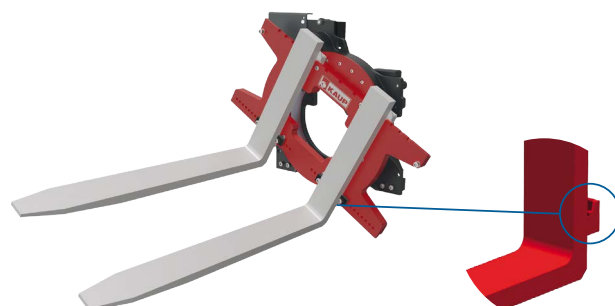
### Optional

#### Lateral supporting fork



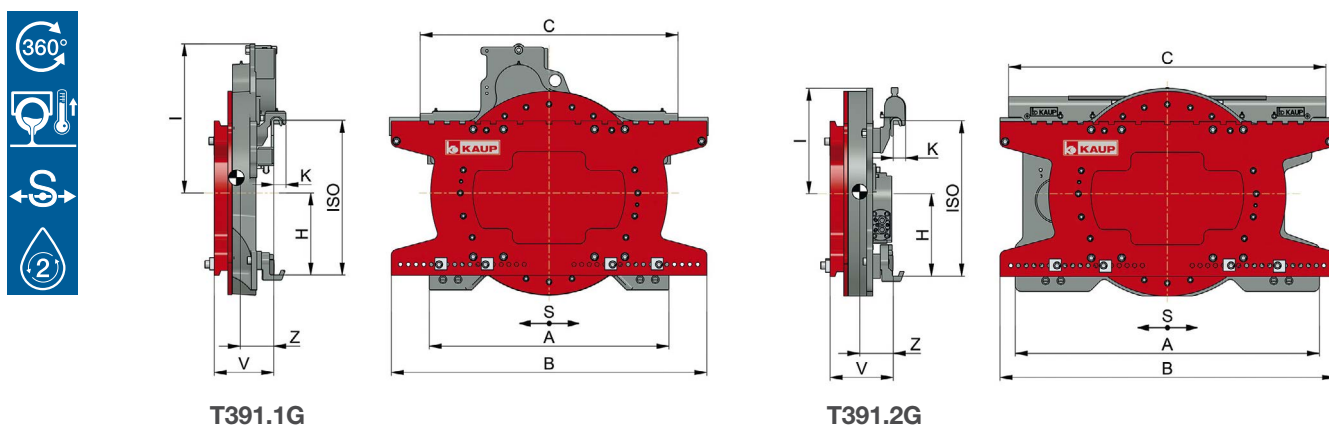
#### Downhold with gripping claw T167

Downhold to empty metal grid boxes etc.  
1T - 3T167 incl. rotary conduit.  
Opening range (over fork) 700-1.290 mm.



#### Forks for KAUP Rotators - lower brackets strengthened

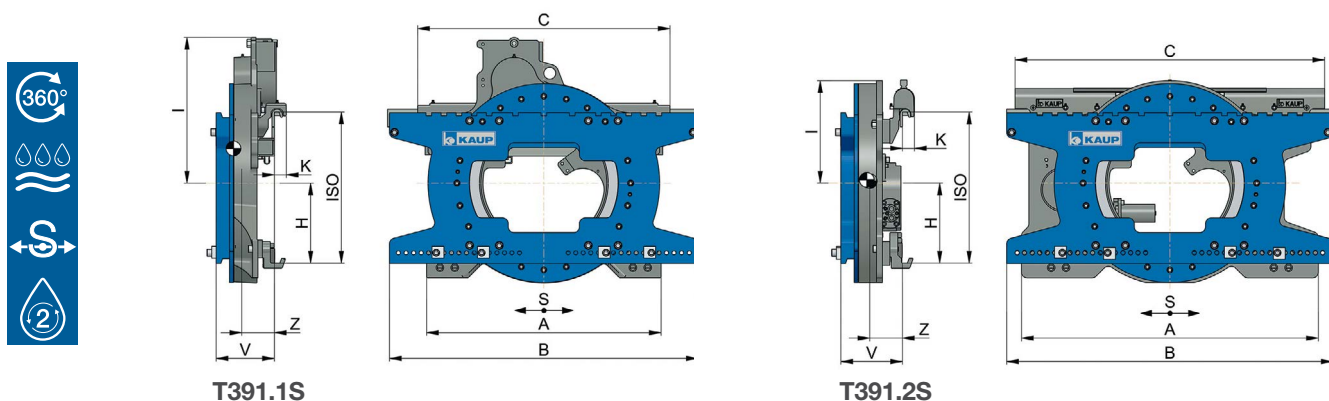
When forks are used in combination with a Rotator extremely high strain is applied to the lower fork angle when rotating a load which in turn strains the lower brackets. For this type of operation KAUP recommends forks with strengthened lower brackets. Strengthened lower brackets can be ordered for all ISO forks on pages 120 and 121.



## Rotator T391G - 360° endless - foundry version

| Model       | Capacity<br>kg | LCD<br>mm | S<br>mm | A<br>mm | B<br>mm | C<br>mm | H<br>mm | I<br>mm | K<br>mm | ISO<br>cl. | Torque<br>Md Δp=<br>125 bar<br>Nm | Oil volume<br>required<br>per rev.<br>ltr. | V<br>mm | CofG<br>Z<br>mm | Weight<br>kg |
|-------------|----------------|-----------|---------|---------|---------|---------|---------|---------|---------|------------|-----------------------------------|--------------------------------------------|---------|-----------------|--------------|
| 1T 391.2G   | 1.800          | 500       | ± 100   | 800     | 890     | 858     | 203     | 410     | 32      | 2          | 6.013                             | 7,6                                        | 206     | 114             | 276          |
| 2T 391.1G   | 2.500          | 500       | ± 100   | 800     | 1.040   | 880     | 269     | 492     | 32      | 2          | 7.700                             | 9,7                                        | 204     | 115             | 327          |
| 2T 391.1G   | 2.500          | 500       | ± 100   | 800     | 1.150   | 880     | 269     | 492     | 32      | 2          | 7.700                             | 9,7                                        | 204     | 116             | 335          |
| 2,5T 391.1G | 3.200          | 500       | ± 100   | 800     | 1.100   | 850     | 269     | 492     | 40      | 3          | 7.700                             | 9,7                                        | 205     | 121             | 420          |
| 3,5T 391.1G | 4.000          | 500       | ± 100   | 1.060   | 1.100   | 1.060   | 381     | 539     | 43      | 3          | 11.815                            | 13,8                                       | 210     | 117             | 544          |
| 4T 391.1G   | 5.000          | 500       | ± 100   | 1.110   | 1.100   | 940     | 378     | 595     | 43      | 3          | 14.823                            | 17,4                                       | 218     | 113             | 610          |
| 4,5T 391.1G | 5.000          | 500       | ± 160   | 1.110   | 1.350   | 940     | 378     | 695     | 49      | 4          | 14.823                            | 17,4                                       | 238     | 128             | 723          |
| 5T 391.2G   | 6.000          | 600       | ± 160   | 1.240   | 1.350   | 1.260   | 345     | 455     | 50      | 4          | 13.434                            | 15,7                                       | 275     | 156             | 804          |
| 6T 391.2G   | 6.500          | 600       | ± 160   | 1.260   | 1.350   | 1.260   | 345     | 455     | 50      | 4          | 17.157                            | 20,7                                       | 275     | 147             | 925          |
| 8T 391.2G   | 8.000          | 900       | ± 160   | 1.300   | 1.600   | 1.700   | 396     | 480     | 54      | 4          | 21.679                            | 18,8                                       | 304     | 165             | 1.145        |

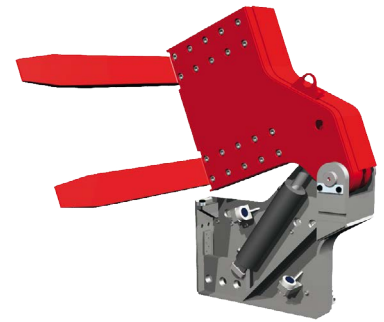
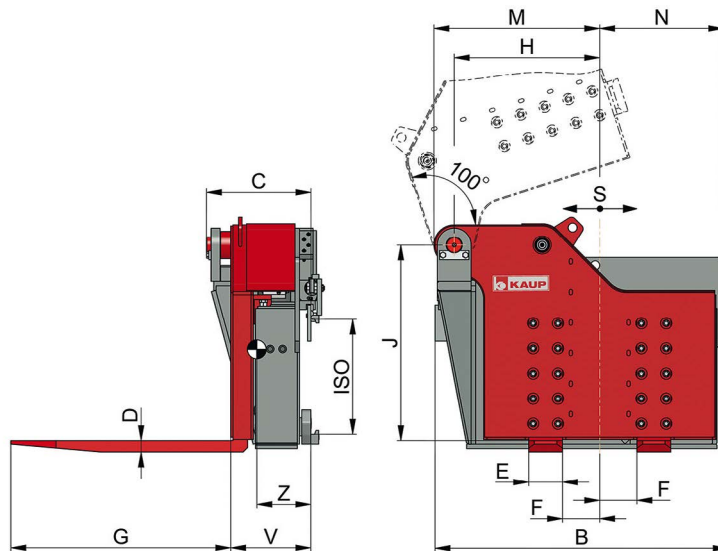
Dust proof versions and foundry rotators up to 40T upon request. Other fork carriage widths available upon request. Rotators with higher rotating speeds available upon request.



## Rotator T391S - T391.3S 360° endless - fishing version

| Model         | Capacity<br>kg | LCD<br>mm | S<br>mm | A<br>mm | B<br>mm | C<br>mm | H<br>mm | I<br>mm | K<br>mm | ISO<br>cl. | Torque<br>Md Δp=<br>125 bar<br>Nm | Oil volume<br>required<br>per rev.<br>ltr. | V<br>mm | CofG<br>Z<br>mm | Weight<br>kg |
|---------------|----------------|-----------|---------|---------|---------|---------|---------|---------|---------|------------|-----------------------------------|--------------------------------------------|---------|-----------------|--------------|
| 1T 391.2S     | 1.800          | 500       | ± 100   | 780     | 890     | 858     | 213     | 294     | 32      | 2          | 6.013                             | 7,6                                        | 192     | 99              | 198          |
| 2T 391.1S     | 2.500          | 500       | ± 100   | 790     | 1.040   | 858     | 269     | 492     | 32      | 2          | 7.700                             | 9,7                                        | 172     | 90              | 255          |
| 2,5T 391.1S   | 3.200          | 500       | ± 100   | 790     | 1.100   | 850     | 269     | 492     | 40      | 3          | 7.700                             | 9,7                                        | 197     | 108             | 318          |
| 1T 391.2.3S   | 1.800          | 500       | ± 100   | 780     | 890     | 858     | 213     | 294     | 32      | 2          | 6.013                             | 7,6                                        | 192     | 99              | 198          |
| 2T 391.1.3S   | 2.500          | 500       | ± 100   | 790     | 1.040   | 858     | 269     | 492     | 32      | 2          | 7.700                             | 9,7                                        | 172     | 90              | 255          |
| 2,5T 391.1.3S | 3.200          | 500       | ± 100   | 790     | 1.100   | 850     | 269     | 492     | 40      | 3          | 7.700                             | 9,7                                        | 197     | 108             | 318          |

Rotators with higher rotating speeds available upon request.



## Ladle Tipper T360 - tilt angle $\alpha = 100^\circ$ to the right side in driving direction

| Modell  | Capacity kg | LCD mm | S mm  | B mm  | D mm | E mm | G mm  | F mm | C mm | H mm | J mm  | M mm  | N mm | ISO cl. | V mm | CofG Z mm | Weight kg |
|---------|-------------|--------|-------|-------|------|------|-------|------|------|------|-------|-------|------|---------|------|-----------|-----------|
| 1T 360  | 800         | 500    | ± 100 | 820   | 40   | 100  | 1.000 | 150  | 297  | 320  | 465   | 150   | 365  | 2       | 250  | 220       | 295       |
| 2T 360  | 1.500       | 500    | ± 100 | 1.040 | 50   | 150  | 1.000 | 210  | 390  | 545  | 760   | 635   | 400  | 2       | 314  | 263       | 675       |
| 3T 360  | 2.500       | 500    | ± 160 | 1.285 | 50   | 150  | 1.000 | 330  | 460  | 645  | 900   | 735   | 550  | 3       | 356  | 239       | 1.085     |
| 5T 360  | 4.000       | 600    | ± 200 | 1.890 | 60   | 160  | 1.000 | 175  | 630  | 880  | 890   | 990   | 525  | 4       | 460  | 282       | 1.430     |
| 7T 360  | 6.000       | 600    | ± 200 | 1.890 | 70   | 200  | 1.000 | 195  | 630  | 880  | 890   | 990   | 525  | 4       | 470  | 315       | 1.780     |
| 10T 360 | 7.500       | 600    | ± 200 | 1.775 | 80   | 200  | 1.000 | 480  | 670  | 910  | 1.035 | 1.045 | 730  | 4       | 565  | 385       | 2.600     |
| 12T 360 | 9.000       | 700    | ± 275 | 1.975 | 90   | 200  | 1.400 | 350  | 748  | 895  | 950   | 1.015 | 870  | -       | 620  | 415       | 3.300     |

Optional available for tilting to the left side in driving direction. Terminal West / Pin-Type mounting available upon request.



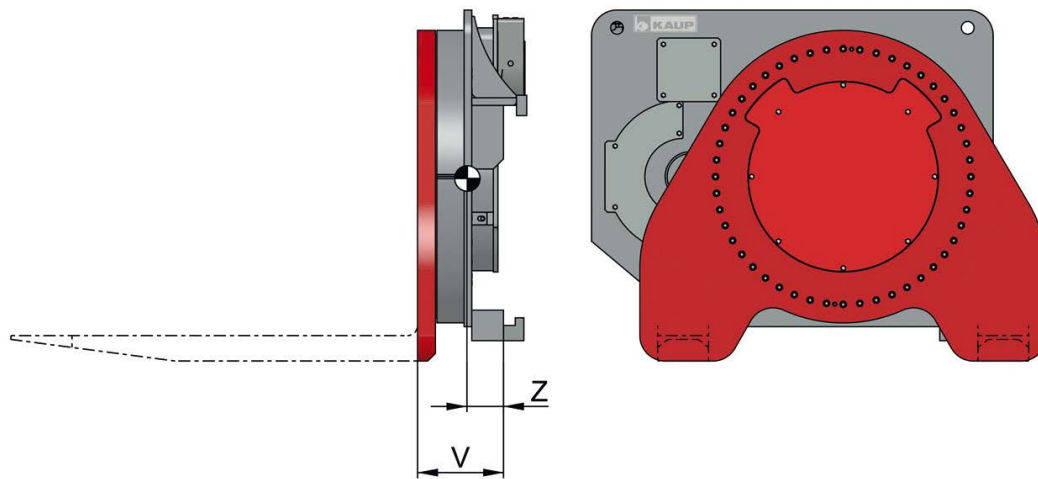
## Casting Device for Foundry Ladles T360G

To empty ladles to both sides and forwards

| Model      | Capacity kg | LCD mm | V mm | CofG Z mm | Weight kg |
|------------|-------------|--------|------|-----------|-----------|
| 1,5T 360 G | 750         | 850    | 120  | 510       | 400       |
| 2T 360 G   | 1.300       | 850    | 120  | 505       | 590       |
| 4T 360 G   | 2.000       | 1.150  | 160  | 850       | 1.060     |
| 6T 360 G   | 5.000       | 815    | 180  | 610       | 1.960     |
| 8T 360 G   | 5.000       | 1.500  | 200  | 1.240     | 2.800     |

Further Casting Devices for Foundry Ladles in various sizes, versions as well as with different rotation or tilt angles available upon request.





## Rotator from 10T351 - 360° endless

| Model  | Capacity<br>kg | LCD<br>mm | Torque<br>Md Δp=125 bar<br>Nm | Oil volume<br>required<br>per revolution<br>ltr. | V<br>mm | CofG <sup>1)</sup><br>Z<br>mm | Weight <sup>1)</sup><br>kg |
|--------|----------------|-----------|-------------------------------|--------------------------------------------------|---------|-------------------------------|----------------------------|
| 10T351 | 12.000         | 900       | 28.000                        | 15                                               | 440     | 250                           | 1.910                      |
| 15T351 | 15.000         | 900       | 56.000                        | 30                                               | 450     | 460                           | 2.335                      |
| 20T351 | 22.000         | 900       | 60.000                        | 60                                               | 465     | 350                           | 3.650                      |
| 25T351 | 24.000         | 1.200     | 60.000                        | 60                                               | 465     | 270                           | 4.850                      |
| 30T351 | 28.000         | 1.200     | 90.000                        | 120                                              | 465     | 270                           | 4.940                      |
| 35T351 | 25.000         | 1.600     | 90.000                        | 120                                              | 495     | 305                           | 5.490                      |
| 42T351 | 30.000         | 1.600     | 90.000                        | 120                                              | 505     | 325                           | 5.840                      |
| 52T351 | 36.000         | 1.600     | 120.000                       | 240                                              | 525     | 500                           | 7.040                      |

With sideshift function model T391 available upon request. Other capacities available upon request.

<sup>1)</sup> CofG and weight measurements do not take the forks into account.

### Rotator T391 · T391G · T351S · 0.8T351.2-SG



KAUP attachments correspond to the requirements of the valid EC regulations regarding quality, safety and technical documentation.  
All technical data are subject to alteration.

KAUP is certified acc. to DIN EN ISO 9001



### Material World Co., Ltd.

55/5 Chaiphruet Road, Pakret,  
Nonthaburi 11120, Thailand  
Call: 02-5016300  
E-Mail: sales@materialworld.co.th  
www.materialworld.co.th

### Material World Asia Co., Ltd.

Unit 2.2B, Etown 1 Building, 364 Cong Hoa Street, Ward  
13, Tan Binh District, Ho Chi Minh City, Vietnam.  
Call: 02-5016300  
E-Mail: sales@materialworld.co.th  
www.materialworldasia.com