

# Important Note for End-Users Before We Get Started !



Workpiece's center point is important to calculate and consider when you need to know how much diameter you can rotate at certain included angle and certain center to center dimension.

It is mentioned clearly that how big your vessel can be loaded on rotator set at a certain angle. **The best angle for rotation that WESTERMANS suggests is 60°.**

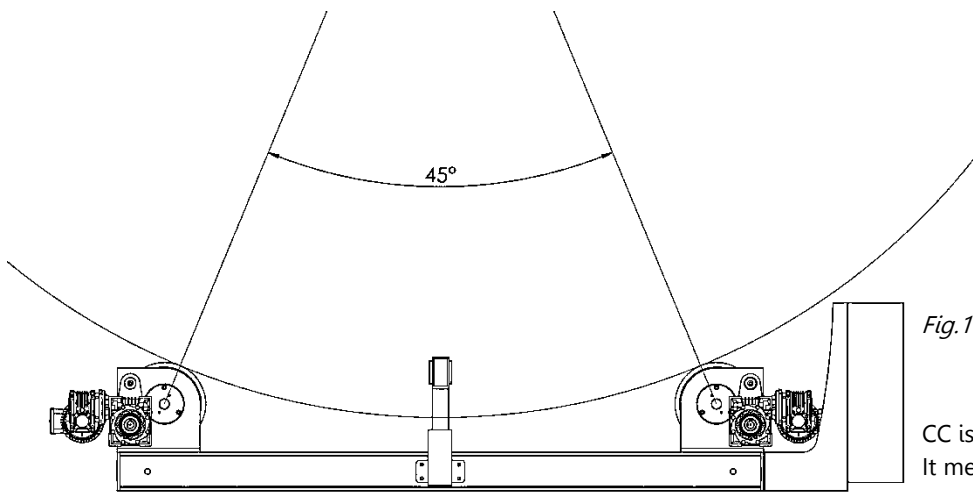


Fig.1

CC is 2000 and Angle adjusted as 45 degree on Fig1. It means that the diameter is 4926mm.

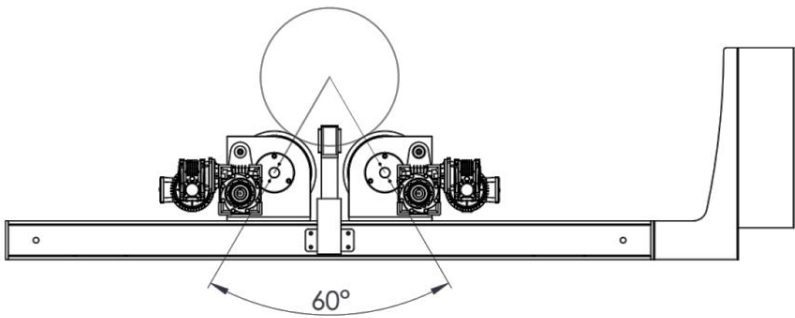


Fig.2

CC is 400 and Angle adjusted as 60 degree on Fig2. It means that the diameter is 500mm.

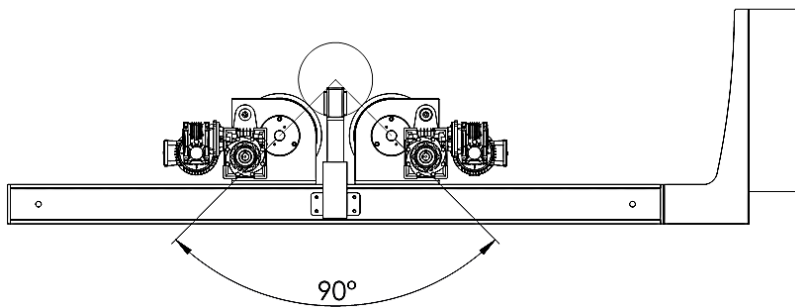
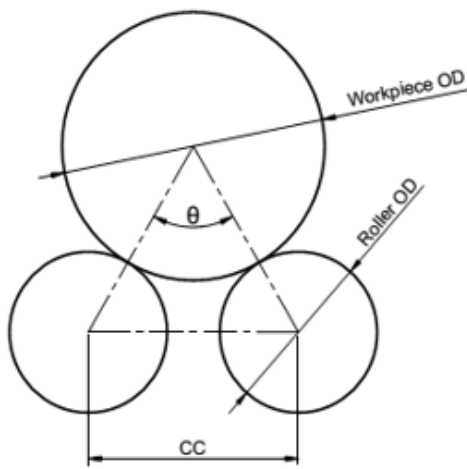


Fig.3

CC is 400 and Angle adjusted as 90 degree on Fig3. It means that the diameter gets smaller even CC stays same. The diameter is 265mm.

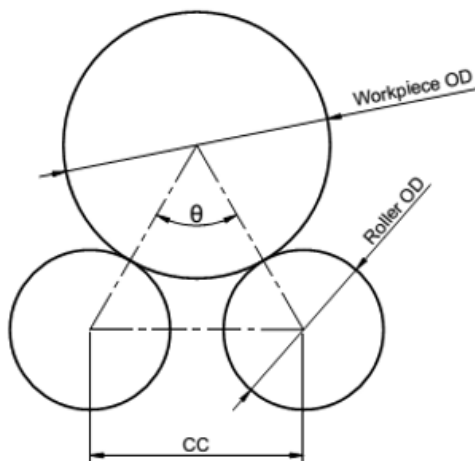
# Diameter Data Plate

Wondering how big diameter you can rotate at certain Center to Center(CC) dimension and angle?  
WESTERMANS' data plates make your calculation and work easier.



|                       |      | Angle ( $\theta$ ) - For 300 mm dia. Roller |      |      |      |      |      |      |      |      |      |
|-----------------------|------|---|------|------|------|------|------|------|------|------|------|
|                       |      | 45  | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   | 90   |
| CC (Center to Center) | 400  | 745   | 646  | 566  | 500  | 444  | 397  | 357  | 322  | 292  | 266  |
|                       | 500  | 1007  | 883  | 783  | 700  | 631  | 572  | 521  | 478  | 440  | 407  |
|                       | 600  | 1268  | 1120 | 999  | 900  | 817  | 746  | 686  | 633  | 588  | 549  |
|                       | 700  | 1529  | 1356 | 1216 | 1100 | 1003 | 920  | 850  | 789  | 736  | 690  |
|                       | 800  | 1791  | 1593 | 1433 | 1300 | 1189 | 1095 | 1014 | 945  | 884  | 831  |
|                       | 900  | 2052  | 1830 | 1649 | 1500 | 1375 | 1269 | 1178 | 1100 | 1032 | 973  |
|                       | 1000 | 2313  | 2066 | 1866 | 1700 | 1561 | 1443 | 1343 | 1256 | 1180 | 1114 |
|                       | 1100 | 2574  | 2303 | 2082 | 1900 | 1747 | 1618 | 1507 | 1411 | 1328 | 1256 |
|                       | 1200 | 2836  | 2539 | 2299 | 2100 | 1933 | 1792 | 1671 | 1567 | 1476 | 1397 |
|                       | 1300 | 3097  | 2776 | 2515 | 2300 | 2120 | 1966 | 1835 | 1722 | 1624 | 1538 |
|                       | 1400 | 3358  | 3013 | 2732 | 2500 | 2306 | 2141 | 2000 | 1878 | 1772 | 1680 |
|                       | 1500 | 3620  | 3249 | 2949 | 2700 | 2492 | 2315 | 2164 | 2034 | 1920 | 1821 |
|                       | 1600 | 3881  | 3486 | 3165 | 2900 | 2678 | 2490 | 2328 | 2189 | 2068 | 1963 |
| 1700                  | 4142 | 3723  | 3382 | 3100 | 2864 | 2664 | 2493 | 2345 | 2216 | 2104 |      |
| 1800                  | 4404 | 3959  | 3598 | 3300 | 3050 | 2838 | 2657 | 2500 | 2364 | 2246 |      |
| 1900                  | 4665 | 4196  | 3815 | 3500 | 3236 | 3013 | 2821 | 2656 | 2512 | 2387 |      |
| 2000                  | 4926 | 4432  | 4031 | 3700 | 3422 | 3187 | 2985 | 2811 | 2660 | 2528 |      |

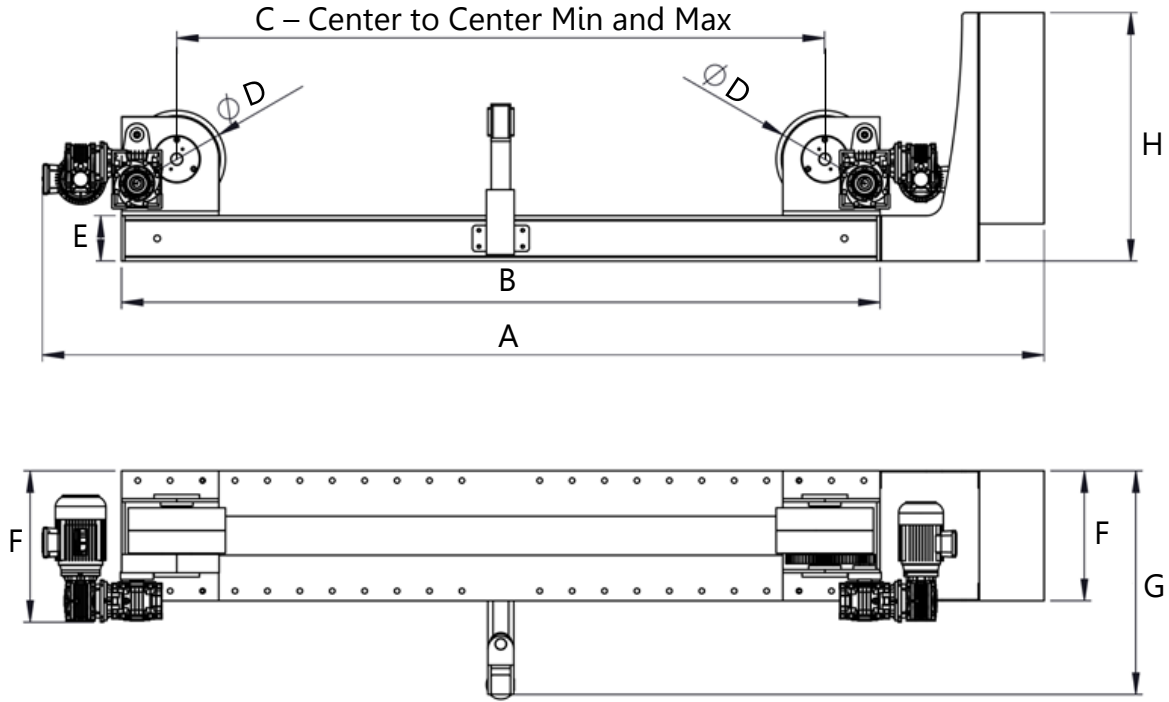
NOTE : Cross section of CC and Angle gives you the diameter(OD) of the workpiece.  
\* Suggested angle is 60°



|                       |      | Angle ( $\theta$ ) - For 380 mm dia. Roller |      |      |      |      |      |      |      |      |      |
|-----------------------|------|---|------|------|------|------|------|------|------|------|------|
|                       |      | 45  | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   | 90   |
| CC (Center to Center) | 640  | 1292  | 1134 | 1006 | 900  | 811  | 736  | 671  | 616  | 567  | 525  |
|                       | 790  | 1684  | 1489 | 1331 | 1200 | 1090 | 997  | 918  | 849  | 789  | 737  |
|                       | 940  | 2076  | 1844 | 1656 | 1500 | 1369 | 1259 | 1164 | 1082 | 1011 | 949  |
|                       | 1090 | 2468  | 2199 | 1981 | 1800 | 1649 | 1520 | 1411 | 1316 | 1233 | 1161 |
|                       | 1240 | 2860  | 2554 | 2305 | 2100 | 1928 | 1782 | 1657 | 1549 | 1455 | 1374 |
|                       | 1390 | 3252  | 2909 | 2630 | 2400 | 2207 | 2043 | 1903 | 1782 | 1677 | 1586 |
|                       | 1540 | 3644  | 3264 | 2955 | 2700 | 2486 | 2305 | 2150 | 2016 | 1899 | 1798 |
|                       | 1690 | 4036  | 3619 | 3280 | 3000 | 2765 | 2566 | 2396 | 2249 | 2122 | 2010 |
|                       | 1840 | 4428  | 3974 | 3605 | 3300 | 3045 | 2828 | 2643 | 2483 | 2344 | 2222 |
|                       | 1990 | 4820  | 4329 | 3930 | 3600 | 3324 | 3089 | 2889 | 2716 | 2566 | 2434 |
|                       | 2140 | 5212  | 4684 | 4255 | 3900 | 3603 | 3351 | 3135 | 2949 | 2788 | 2646 |
|                       | 2290 | 5604  | 5039 | 4579 | 4200 | 3882 | 3612 | 3382 | 3183 | 3010 | 2859 |
|                       | 2440 | 5996  | 5394 | 4904 | 4500 | 4161 | 3874 | 3628 | 3416 | 3232 | 3071 |

NOTE : Cross section of CC and Angle gives you the diameter(OD) of the workpiece.  
\* Suggested angle is 60°

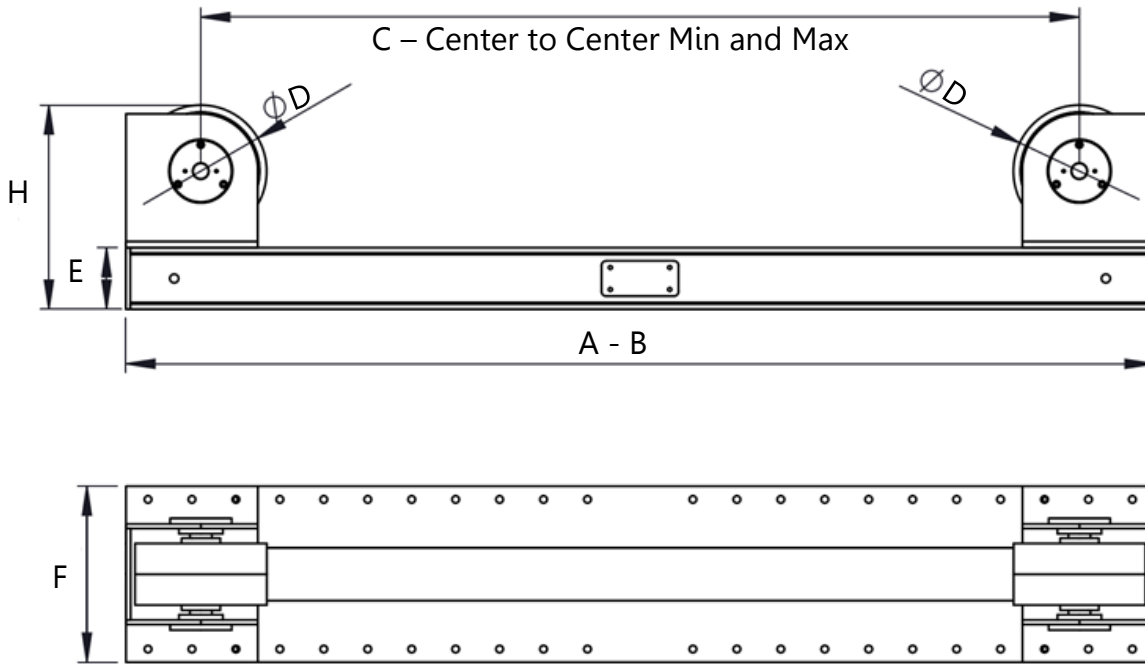
# Technical Specifications - DRIVE



|                                     | 5 TON   | 10 TON     | 20 TON           | 30 TON     | 60 TON           |
|-------------------------------------|---|------------|------------------|------------|------------------|
| Rotation Capacity (kg)              | 5000  | 10000      | 20000            | 30000      | 60000            |
| Loading Capacity (kg)               | 2500  | 5000       | 10000            | 15000      | 30000            |
| Min Vessel Dia @90 degree (mm)      | 265 @ 400mm CC  |            | 525 @ 640mm CC   |            | 240 @ 560mm CC   |
| Max Vessel Dia @45 degree (mm)      | 4925 @2000mm CC   |            | 6000 @ 2440mm CC |            | 7500 @ 3080mm CC |
| Roller Dia. and Width (mm)          | 300x70 – 2pcs   |            | 380x160 – 1 pcs  |            | 550x160 – 1 pcs  |
| Roller Coating                      | Polyurethan Coating   |            |                  |            |                  |
| Rot. Speed Min – Max (mm/min)       | 125 @ 5 Hz – 1250 @ 50 Hz   |            |                  |            |                  |
| Rotation Drive Motor - AC           | 0,37 kW x 2   | 0,55 kW x2 | 0,75 kW x 2      | 1,1 kW x 2 | 1,5 kW x 2       |
| Rotation Drive Inverter - AC        | 0,75 kW   | 1,1 kW     | 1,5 kW           | 2,2 kW     | 3 kW             |
| Travel Car                          | Optional  |            |                  |            |                  |
| Travel Car Speed                    | N/A   |            |                  |            |                  |
| Travel Car Drive                    | N/A   |            |                  |            |                  |
| Electrical Panel                    | Yes   |            |                  |            |                  |
| Power Supply                        | 380V/400V – 3 Ph – 50 Hz/60 Hz  |            |                  |            |                  |
| Control Unit                        | Telemecanique hand pendant with 5 mt cable protected in flexible steel hose |            |                  |            |                  |
| Standard Colour                     | RAL 5005 – BLUE & RAL 7032 – BEIGE / Texture Painting                       |            |                  |            |                  |
| Anti Creep                          | 1 unit – Exchangable with IDLER   |            | No               |            | No               |
| A – Outside to Outside Length       | 3090  |            | 3642             |            | 4680             |
| B – Chassis Length                  | 2340  |            | 2900             |            | 3890             |
| C – Center to Center Min Max        | 400 – 2000  |            | 640 - 2440       |            | 560 - 3080       |
| D – Roller Diameter                 | 300   |            | 380              |            | 550              |
| E – Height of Chassis               | 140   |            | 140              |            | 180              |
| F – Width of Chassis (OO Width)     | 400 (466)   |            | 450 (550)        |            | 575 (685)        |
| G – Width with Anti Creep           | 690   |            | 738              | -          | -                |
| H – Total Height                    | 765   |            | 765              |            | 785              |
| Weight of 1 set (1 drive + 1 idler) | 850 Kg  |            | 1100 Kg          |            | 1750 Kg          |
| Shipping Dimensions WxLxH - mm      | 730x3280x1070   |            | 780x3780x1070    |            | 915x4850x1090    |

\*Machine dimensions , shipping dimensions and gross weights can be changed +/- %5

# Technical Specifications - IDLER



|                                   | 5 TON   | 10 TON | 20 TON           | 30 TON | 60 TON           |
|-----------------------------------|---|--------|------------------|--------|------------------|
| Rotation Capacity (kg)            | N/A   |        |                  |        |                  |
| Loading Capacity (kg)             | 2500  | 5000   | 10000            | 15000  | 30000            |
| Min Vessel Dia @90 degree (mm)    | 265 @ 400mm CC  |        | 525 @ 640mm CC   |        | 240 @ 560mm CC   |
| Max Vessel Dia @45 degree (mm)    | 4925 @2000mm CC                                       |        | 6000 @ 2440mm CC |        | 7500 @ 3080mm CC |
| Roller Dia and Width (mm)         | 300x70 – 2pcs   |        | 380x160 – 1 pcs  |        | 550x160 – 1 pcs  |
| Roller Coating                    | Polyurethan Coating                                   |        |                  |        |                  |
| Rotation Speed Min – Max (mm/min) | N/A   |        |                  |        |                  |
| Rotation Drive Motor - AC         | N/A   |        |                  |        |                  |
| Rotation Drive Control - AC       | N/A   |        |                  |        |                  |
| Travel Car                        | Optional  |        |                  |        |                  |
| Travel Car Speed                  | N/A   |        |                  |        |                  |
| Travel Car Drive                  | N/A   |        |                  |        |                  |
| Electrical Panel                  | No  |        |                  |        |                  |
| Power Supply                      | N/A   |        |                  |        |                  |
| Control Unit                      | N/A   |        |                  |        |                  |
| Standard Colour                   | RAL 5005 – BLUE & RAL 7032 – BEIGE / Texture Painting |        |                  |        |                  |
| Anti Creep                        | 1 unit – Exchangable with DRIVE                       |        | No               | No     |                  |
| Dimensions;                       |   |        |                  |        |                  |
| A – Outside to Outside Length     | 2340  |        | 2900             |        | 3890             |
| B – Chassis Length                | 2340  |        | 2900             |        | 3890             |
| C – Center to Center Min Max      | 400 - 2000  |        | 640 – 2440       |        | 560 – 3080       |
| D – Roller Diameter               | 300   |        | 380              |        | 550              |
| E – Height of Chassis             | 140   |        | 140              |        | 180              |
| F – Width of Chassis              | 400   |        | 450              |        | 575              |
| G – Width with Anti Creep         | 690   |        | 738              | -      | -                |
| H – Total Height                  | 465   |        | 560              |        | 785              |

# Optional Items

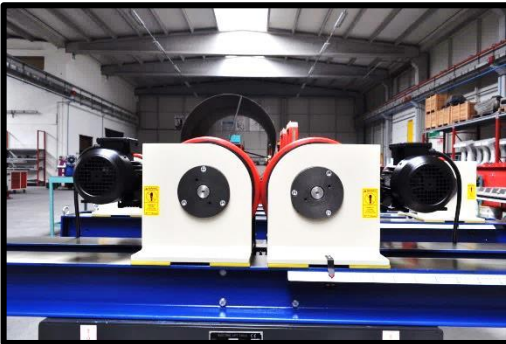
There are some additional technical options that **WESTERMANS** can offer on your conventional rotator. It totally depends on your choice, production, welding system and how you want your equipment.

**Please contact our sales team for optional price information.**

## 1. Worm Screw\* (Threaded Rod) for In & Out Movement

**\*Worm screw option can be applied up to 20 ton capacity.**

### 1a. Worm Screw (Threaded Rod) – Motorized



- Operator can control roller heads' in & out movement from the buttons on hand pendant as motorized.
- Roller heads move simultaneously to both sides in and out.
- In & Out movement is motorized and does not have speed regulator. It has fixed speed.
- By looking at the scale on the rotator, operator will adjust and control CC dimension.

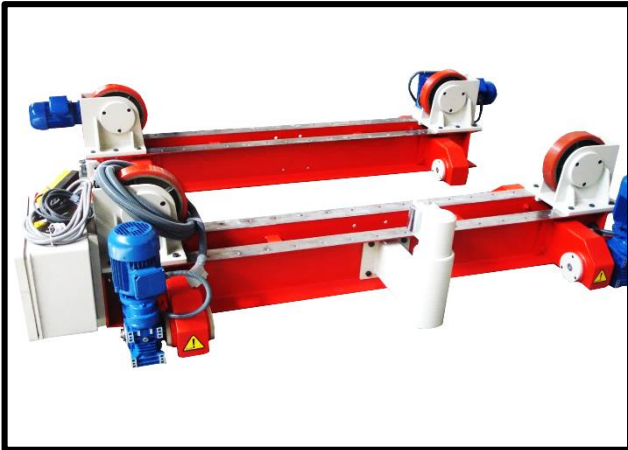
### 1b. Worm Screw (Threaded Rod) – Handwheel / Unmotorized



- Operator controls in & out movement by using the handwheel connected to worm screw.
- By looking at the scale on the rotator, operator will adjust CC dimension.
- Operator needs to check and control the movement by himself.

## 2. Travel Cart (Rail Car) for Movement on the Rail

### 2a. Travel Cart (Rail Car) – Motorized



- Operator can control forward and backward movement of **drive unit** from the buttons on hand pendant.
- Drive unit's travel cart is equipped as motorized only.
- Idler unit has travel cart but unmotorized because of the required distance according to length of workpiece.
- It has **fixed speed** and is not variable.

**OPTION :** *If you would like to move both of them motorized from hand pendant, please mind that certain length of a connection cable(bridge) will be connected between drive and idler unit.*

### 2b. Travel Cart (Rail Car) – Unmotorized

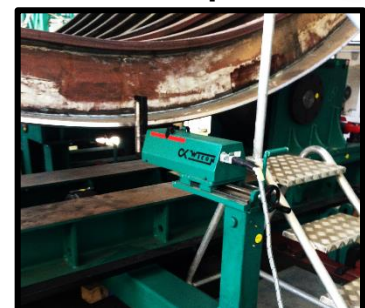


- Operator moves both of the rotator units forward and backward by pushing.

## 3. Vulkollan Coated Wheels, Steel Wheels & Rubber Wheels for special applications

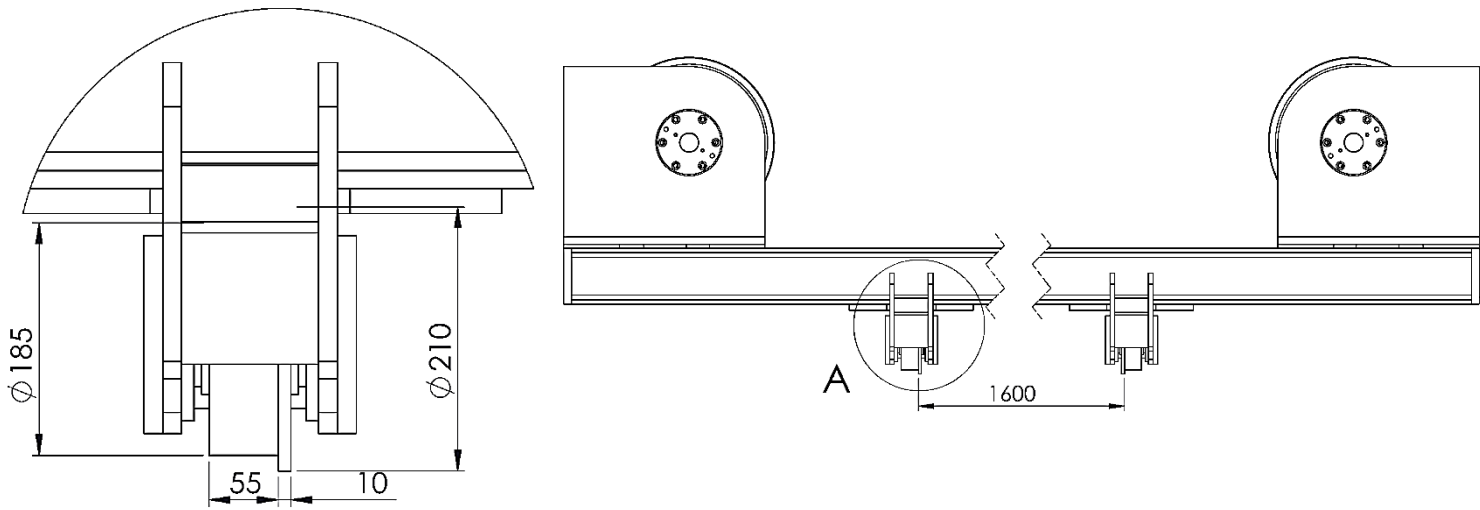


## 4. Additional Manuel Anti Creep (This item is available for 5t – 10t – 20t capacities only)



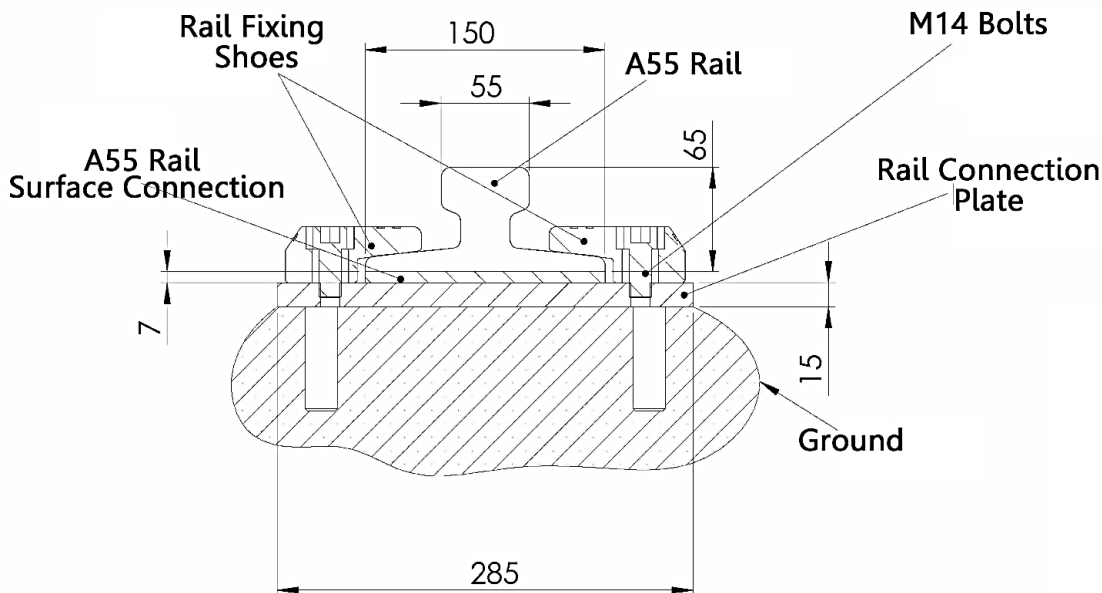
*Anti – Creep with Sensor (ask for details)*

# Travel Base Specifications



1600mm Guide to Guide (GG) distance is standard up to 60 ton capacity conventional rotators.

## Assembling A55 Crane Rail for Travel Base



Given dimensions above are for A55 Crane Rail.

According to capacity, you may need A65 Crane Rail or other type of rails.