



AGS-TECH Inc.

Ph: 505-550-6501 & 505-565-5102

Fx: 505-814-5778

Em: sales@agstech.net, Web: <http://www.agstech.net>

## **SLEWING DRIVES**

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## Slewing Drive

AGS-TECH Slewing Drive is a deceleration device using the principle of worm gear to achieve a large transmission ratio, and the enveloping worm drive is used to transfer movement and power between two axes staggered in space. It is usually composed of worm, slewing bearing, housing and power source.



# EQUIPMENT



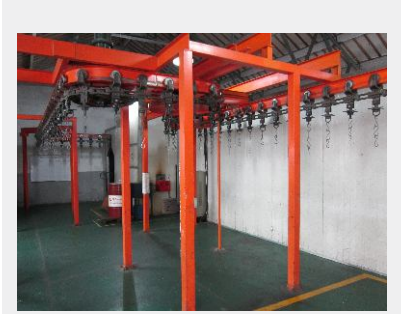
Raceway Quenching Machine



Milling Machine



Lathe Machine



Painting Room



CNC Machine



CNC Machine



Gear Hobbing Machine



Lathe Machine



Tempering Furnace

### ➤ Features:

Characteristics of main components

#### **Slewing bearing**

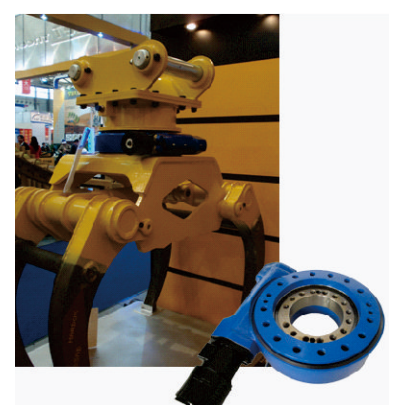
- Can accommodate axial, radial & tilting moment loads acting either singly or in combination and in any direction.
- Compact design to save space and easy for installation and replacement.

#### **Worm gear drive**

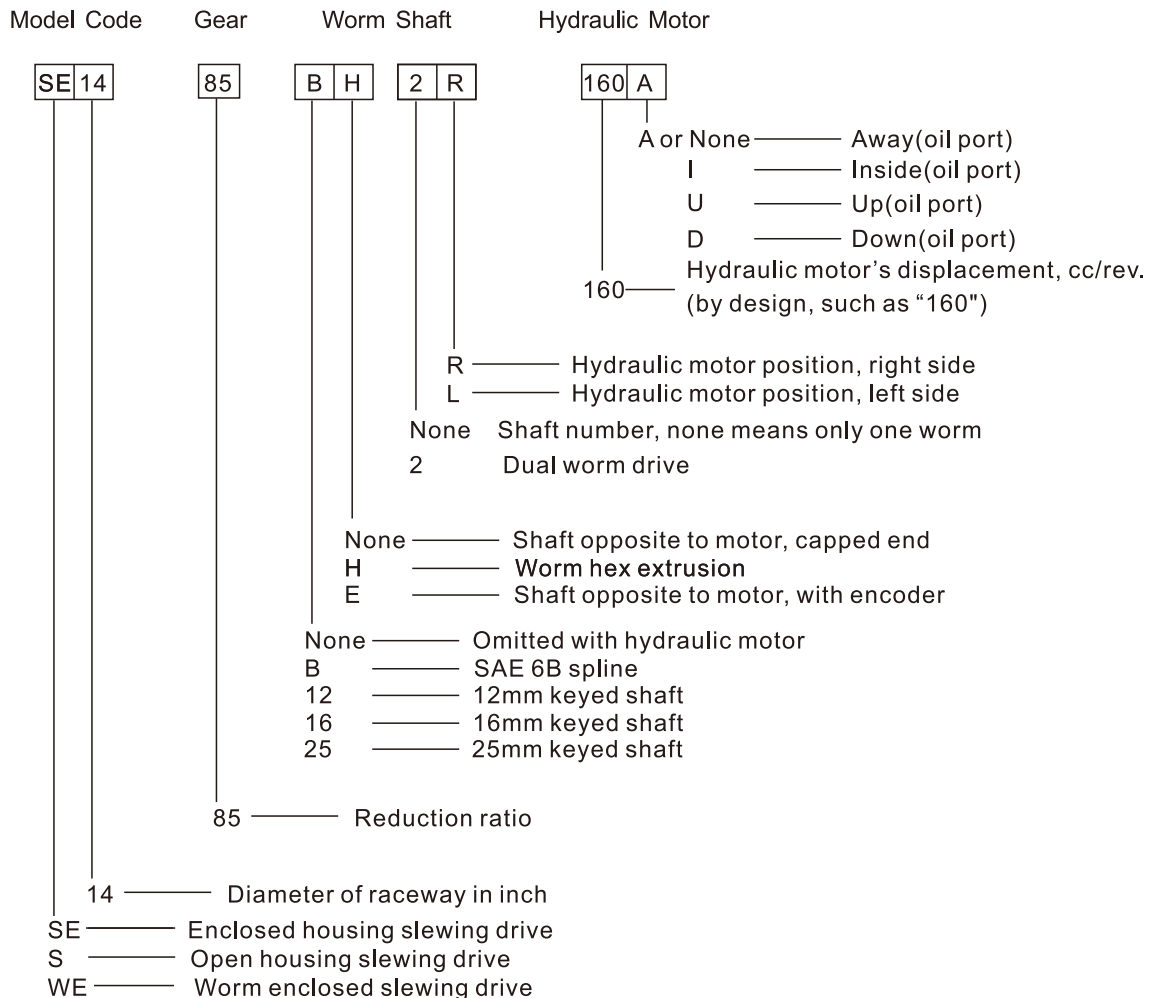
- Big transmission ratio, compact structure, small size and light weight.
- Steady transmission, no noise, low shock and vibration.
- Higher carrying capacity than helical gear drive because of line contact between two-wheeled meshing tooth surface.
- With a number of teeth mesh and self-locking.
- Can withstand great radial and axial loads and strong tilting moment.

### ➤ Applications:

- Heavy-duty flatbed truck
- Cranes of all types
- Automatic assembly line
- Aerial Working Platform
- Modular vehicle
- Rock drilling machine
- Mini wind power station
- Space communications
- Satellite receiver



## Code Description



## Glossary

### Tilting Moment Torque:

Torque is the load multiplied by the distance between the position of load and the center of slewing ring. If the torque generated by load and distance is greater than the rated tilting moment torque, slewing drive will be overturned.

### Axial Load:

Load parallel to the axis of slewing ring.

### Radial Load:

Load vertical to the axis of slewing ring.

### Holding Torque:

It is the reverse torque. When the drive is rotating reversely, and parts are not damaged, the maximum torque achieved is called holding torque.

### Self-locking:

Only when loaded, the slewing drive is not able to reverse rotate and thus called self-locking.

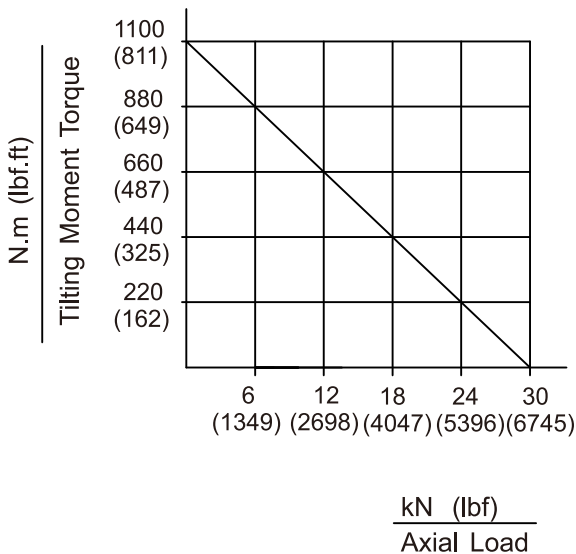




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
SE3C	400N.m	1100 N.m	2000 N.m	30kN	16.6kN	62:1	≤ 0.2 °	30%	<2.5rpm	12
	295 lbf.ft	811 lbf.ft	1475 lbf.ft	6744 lbf	3732 lbf					

MOMENT LOAD CHART  
Axial Load & Tilting Moment

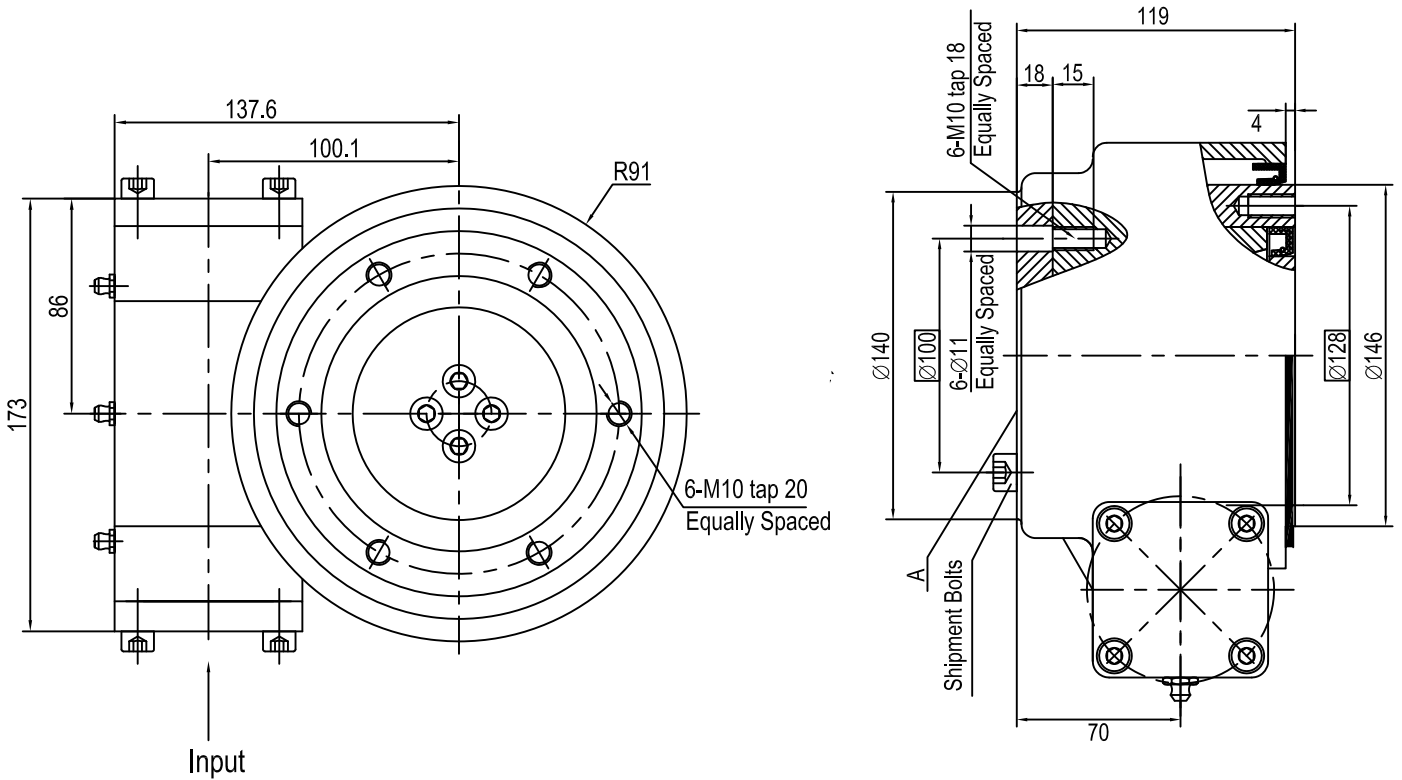


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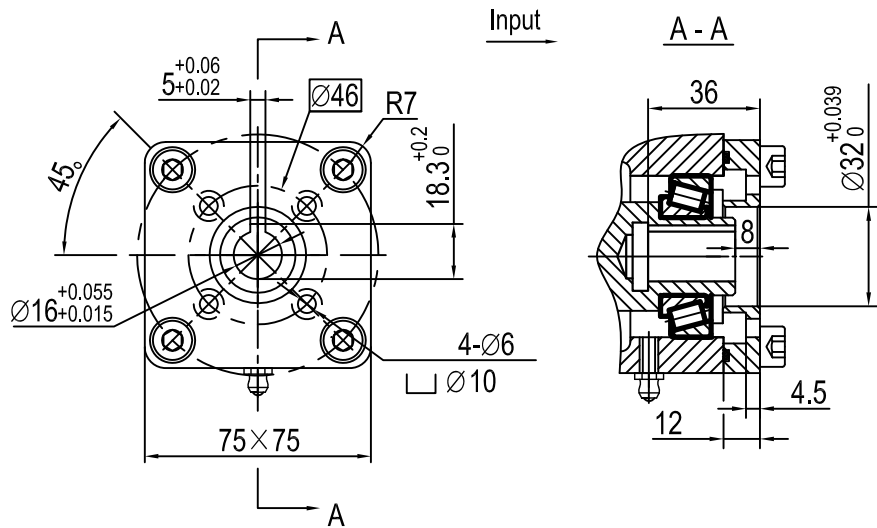
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**Slewing Drive**  
SE5A



*Side A facing up when mounted.*





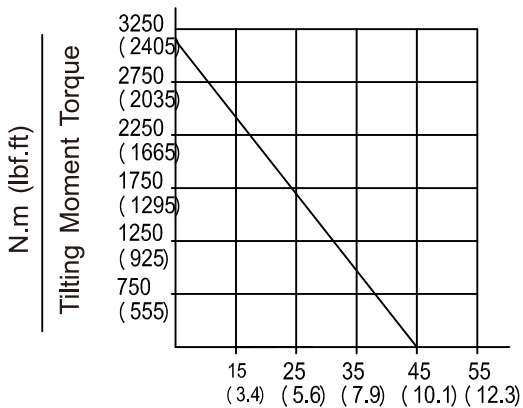


## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
SE5A	600N.m	3000N.m	5500N.m	45kN	22kN	62:1	≤ 0.2 °	30%	<2.5rpm	12
	443 lbf.ft	2212.5 lbf.ft	4056.25lbf.ft	10116 lbf	4945.6 lbf					

### MOMENT LOAD CHART

Axial Load & Tilting Moment



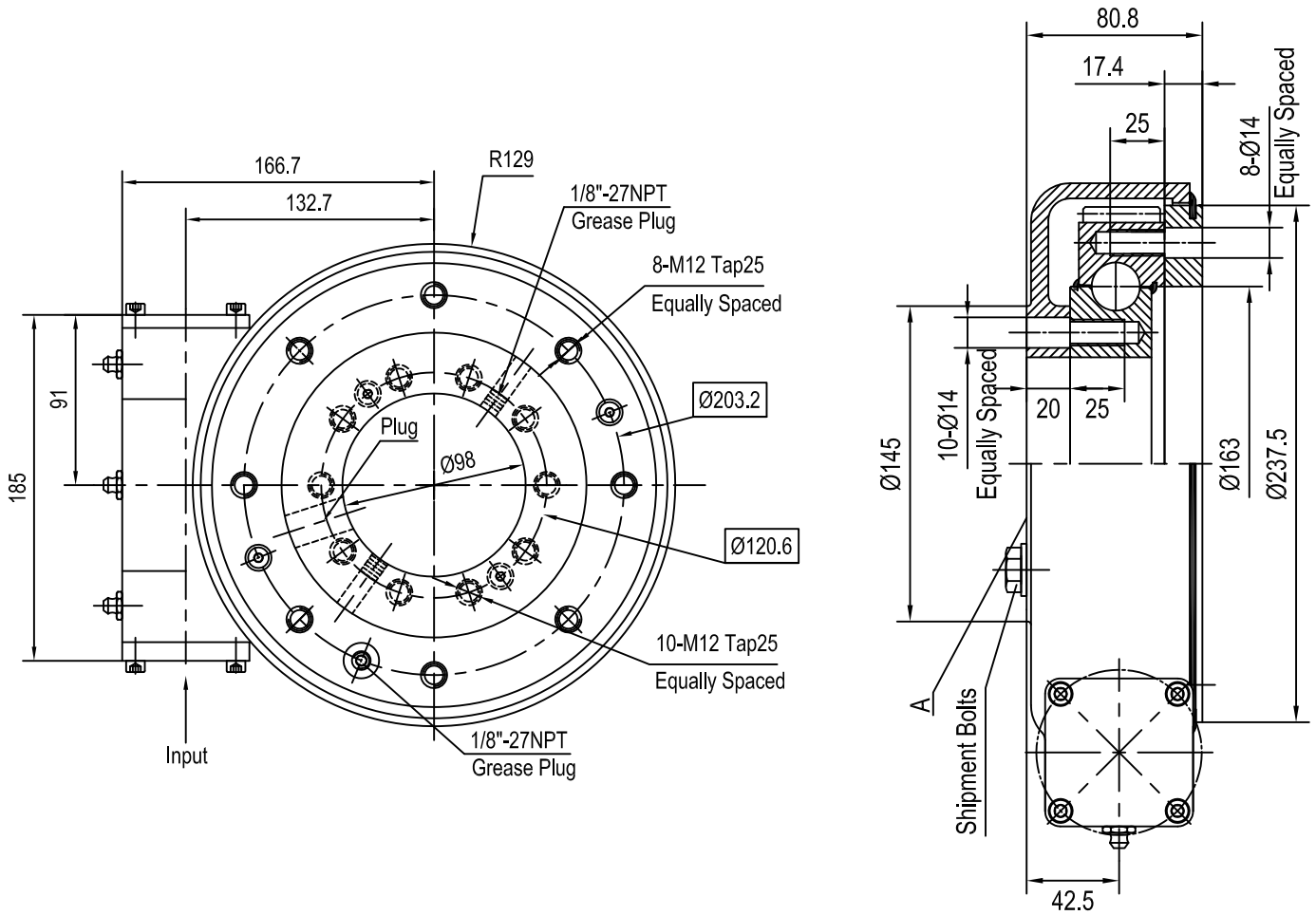
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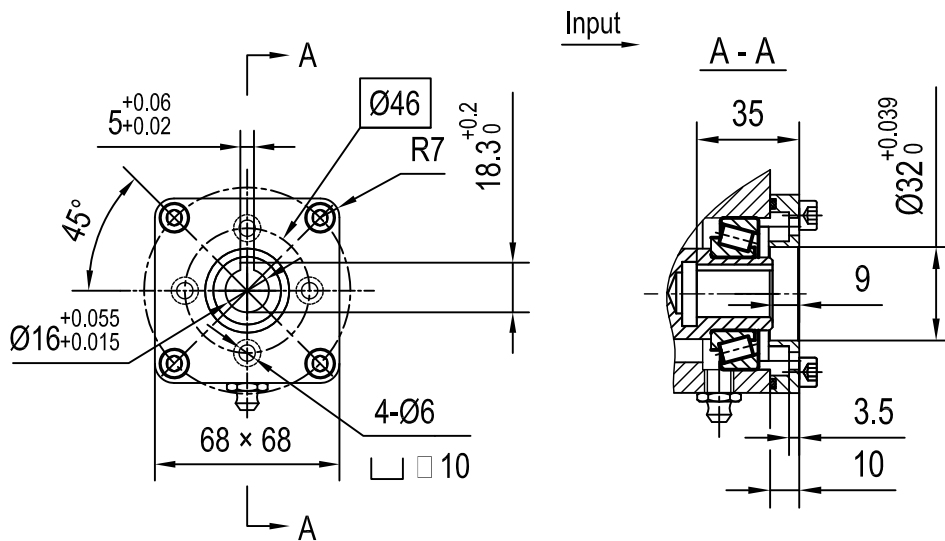
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$\frac{\text{kN} (\times 10^3 \text{ lbf})}{\text{Axial Load}}$

**Slewing Drive**  
**SE7**



*Side A facing up when mounted.*

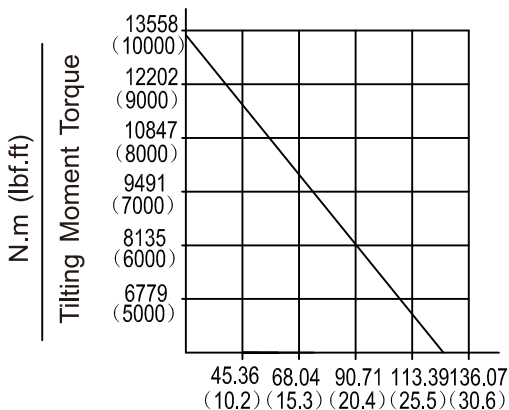




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
SE7	1500N.m	13500N.m	10400N.m	133kN	53kN	73:1	≤ 0.2 °	30%	<2.5rpm	21
	1107bf.ft	9957 lbf.ft	7671 lbf.ft	29900 lbf	11915 lbf					

**MOMENT LOAD CHART**  
Axial Load & Tilting Moment



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$\frac{\text{kN} (\times 10^3 \text{ lbf})}{\text{Axial Load}}$

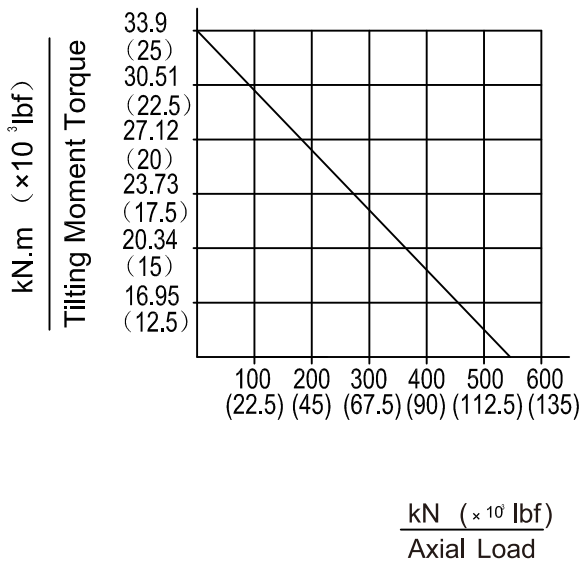




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
WE9	8kN.m	33.9kN.m	38.7kN.m	550kN	205kN	62:1	≤0.15°	40%	<2.5rpm	48.5
	5904bf.ft	25020 lbf.ft	28560 lbf.ft	123700 lbf	46100 lbf					

**MOMENT LOAD CHART**  
Axial Load & Tilting Moment

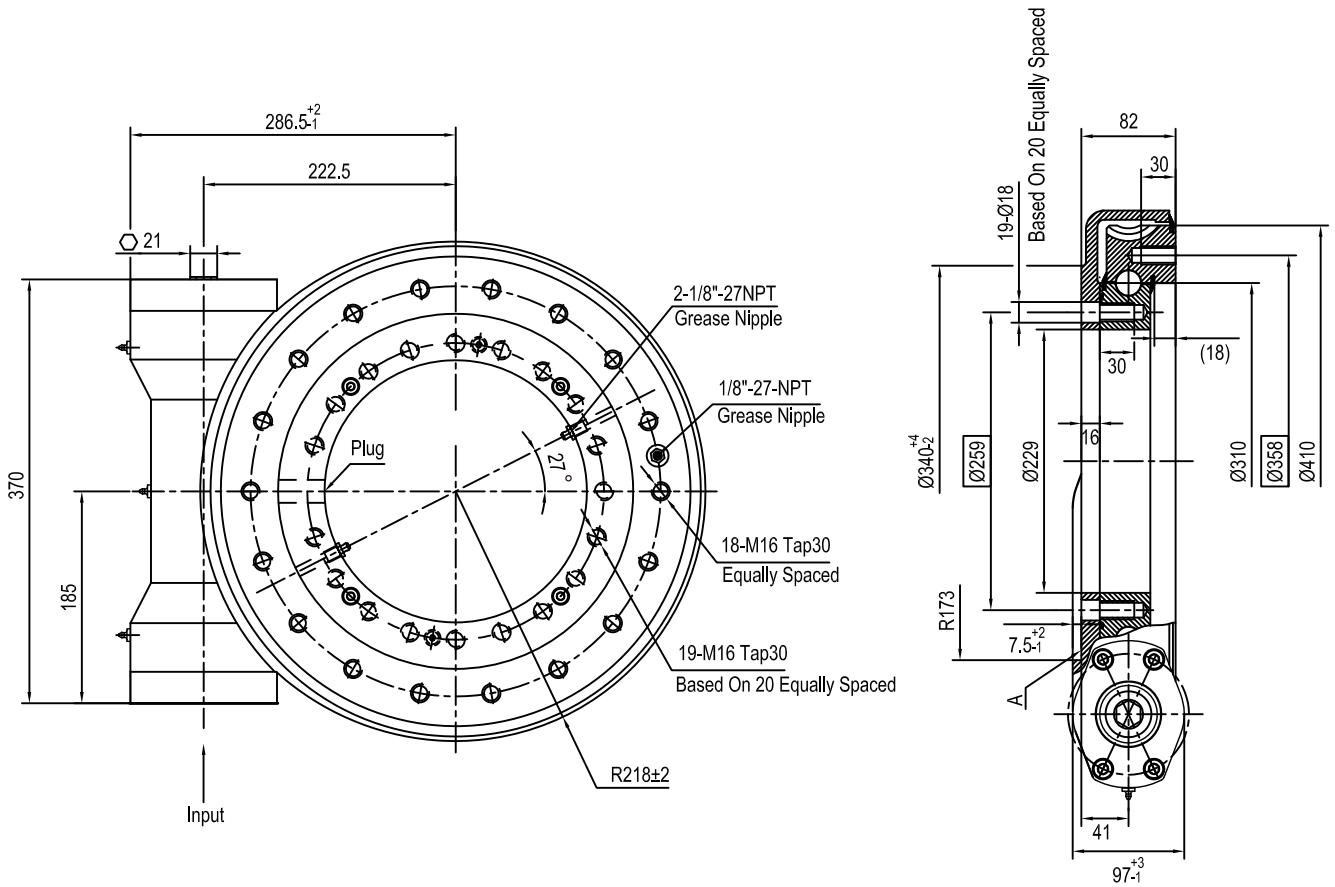


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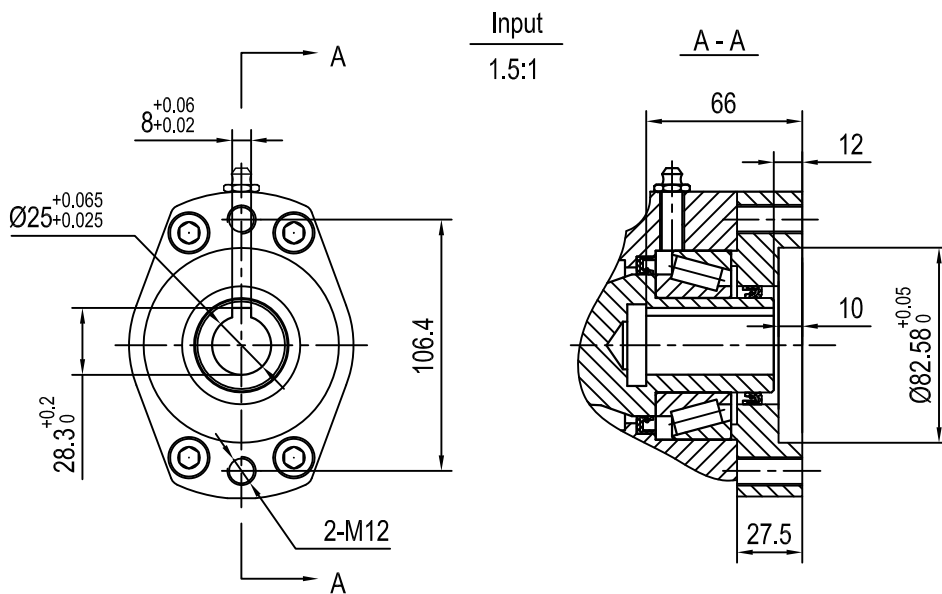
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**Slewing Drive**  
WE12



*Side A facing up when mounted.*

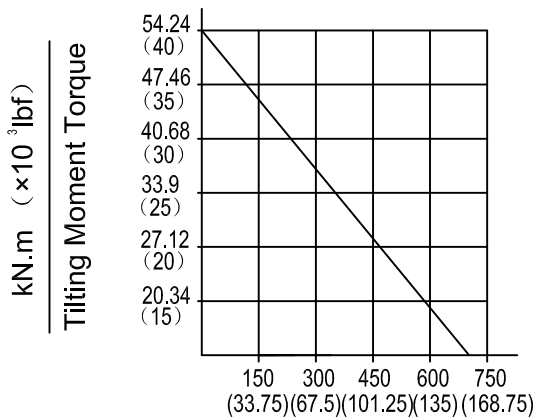




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
WE12	9.5kN.m	54.3kN.m	43kN.m	725kN	270kN	79:1	≤0.15°	40%	<2.5rpm	48.5
	7011lbf.ft	40x10 <sup>3</sup> lbf.ft	31.7x10 <sup>3</sup> lbf.ft	163x10 <sup>3</sup> lbf	60.8x10 <sup>3</sup> lbf					

**MOMENT LOAD CHART**  
Axial Load & Tilting Moment



### NOTICE

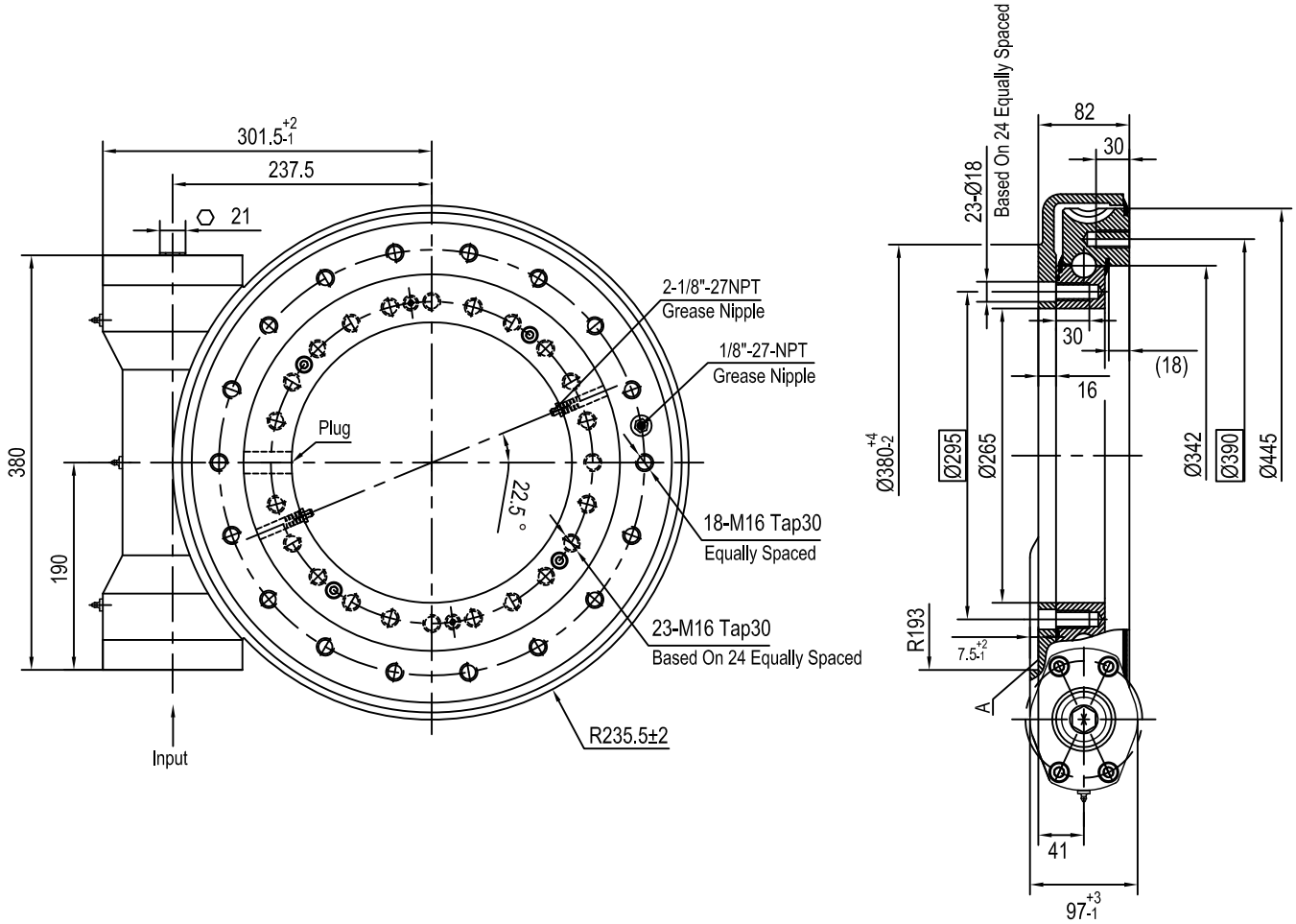
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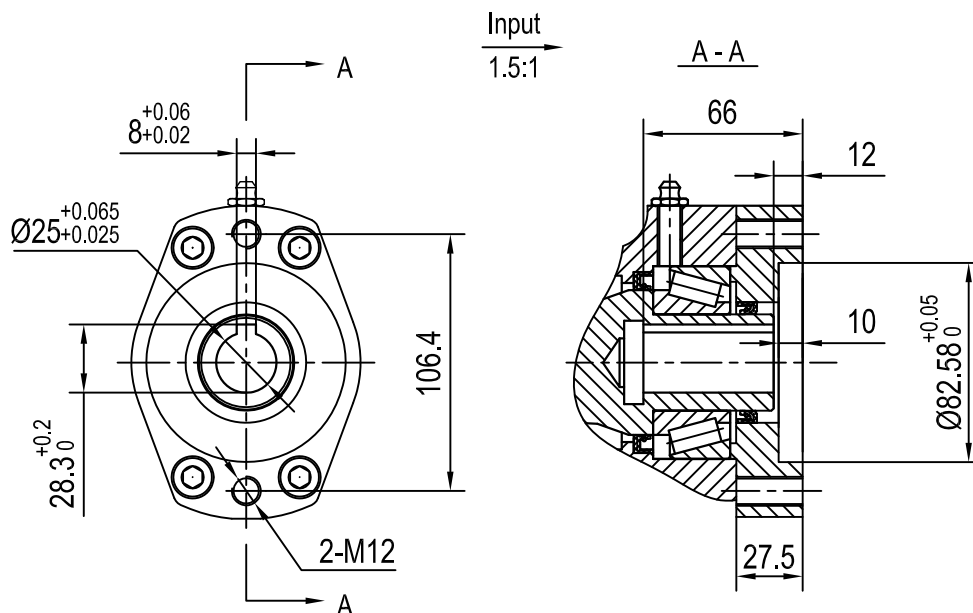
kN ( × 10<sup>3</sup> lbf)  
Axial Load

# Slewing Drive

WE14



*Side A facing up when mounted.*



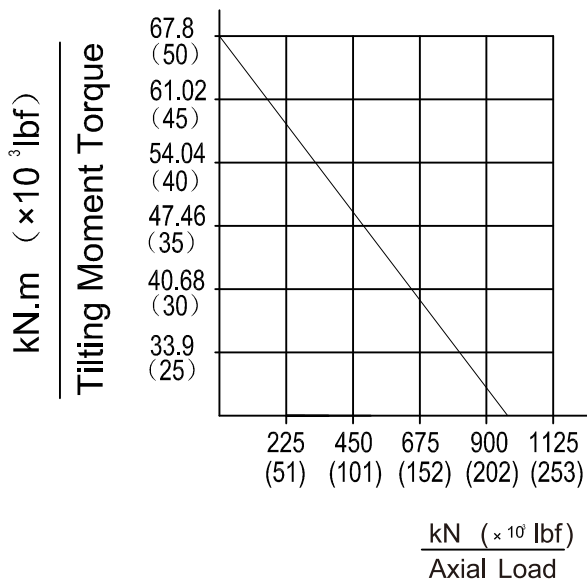




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
WE14	10.8kN.m	67.8kN.m	48kN.m	920kN	343kN	86:1	≤0.13°	40%	<2.5rpm	68
	7970lbf.ft	50.2x10 <sup>3</sup> lbf.ft	35.4x10 <sup>3</sup> lbf.ft	207x10 <sup>3</sup> lbf	77.2x10 <sup>3</sup> lbf					

**MOMENT LOAD CHART**  
Axial Load & Tilting Moment

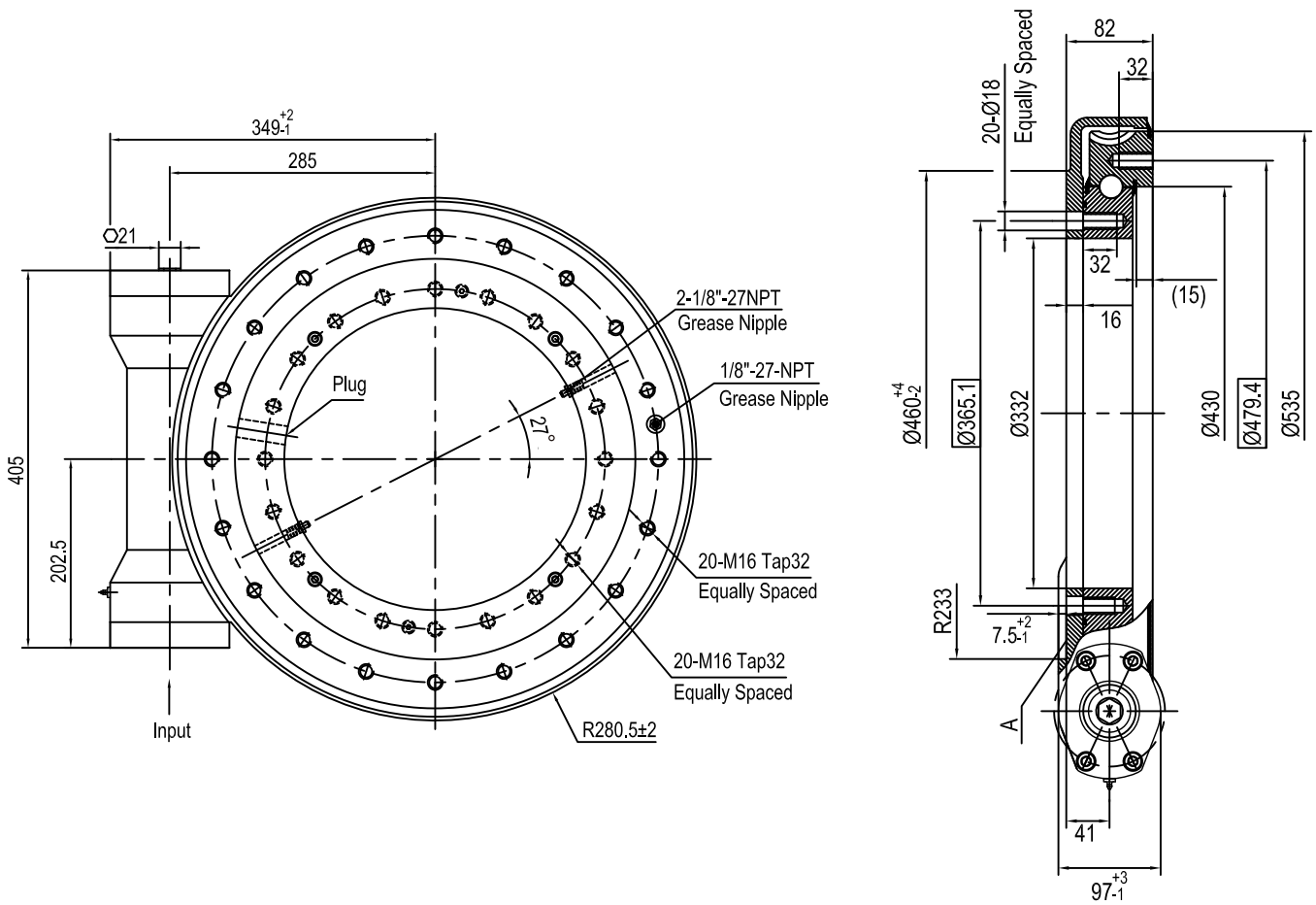


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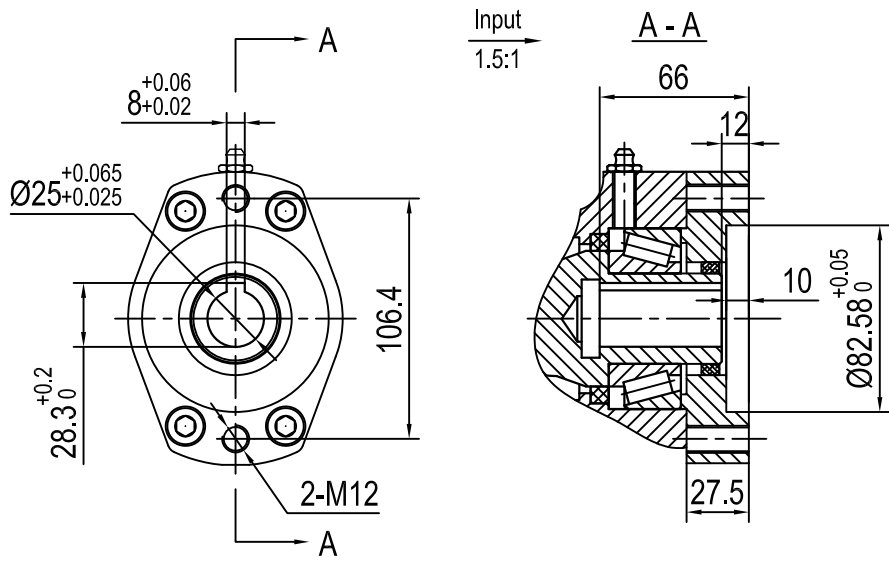
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**Slewing Drive**  
WE17



*Side A facing up when mounted.*

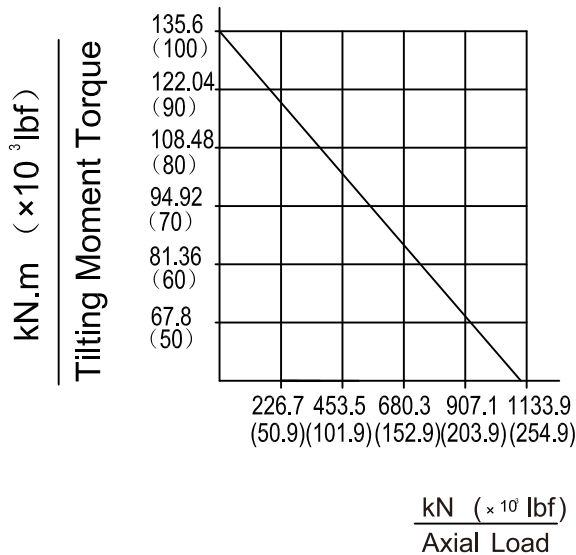




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
WE17	12.96kN.m	135.6kN.m	72.3kN.m	1110kN	414kN	104:1	≤0.1°	40%	<2.5rpm	90
	9564lbf.ft	100x10 <sup>3</sup> lbf.ft	53.4x10 <sup>3</sup> lbf.ft	250x10 <sup>3</sup> lbf	93.2x10 <sup>3</sup> lbf					

**MOMENT LOAD CHART**  
Axial Load & Tilting Moment



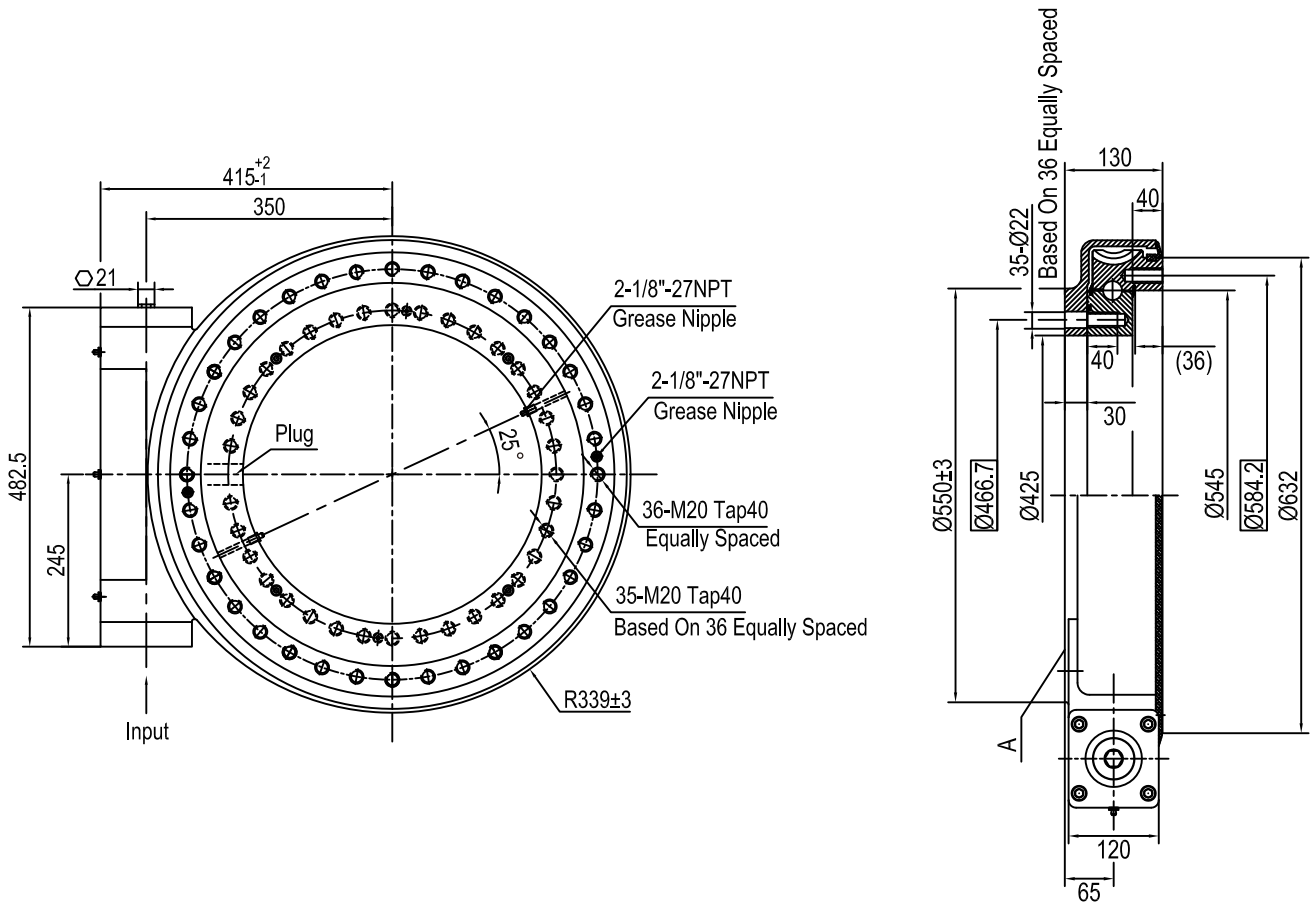
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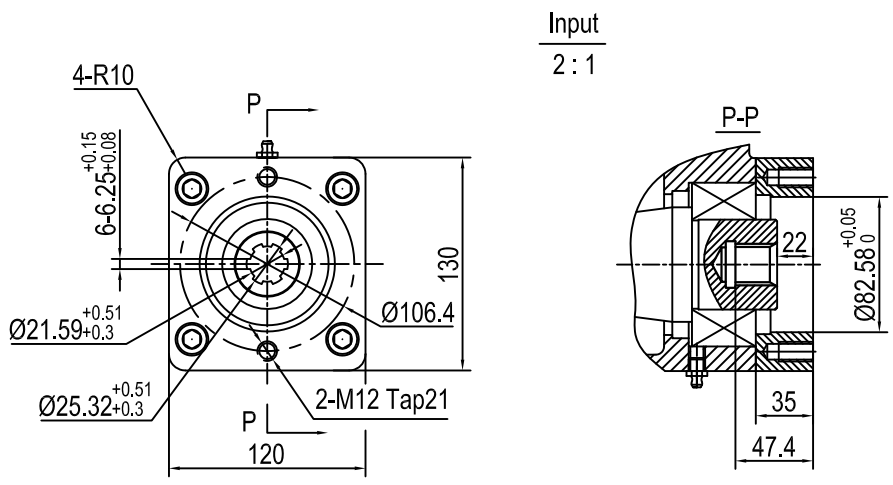
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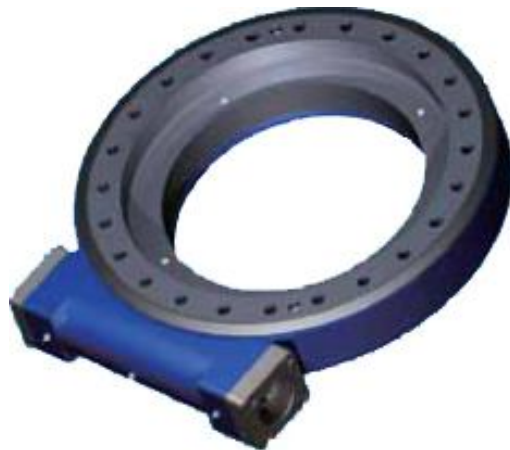
# Slewing Drive

WE21



*Side A facing up when mounted.*

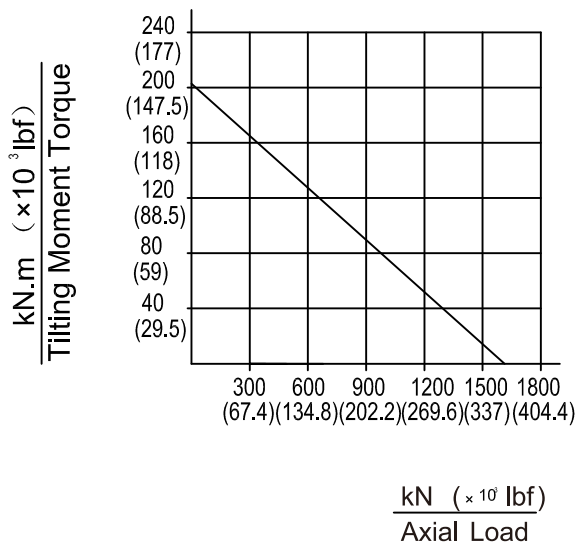




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
WE21	28.7kN.m	203kN.m	105.8kN.m	1598kN	596kN	90:1	≤0.1°	40%	<2.5rpm	169
	21180lbf.ft	150x10 <sup>3</sup> lbf.ft	78.1x10 <sup>3</sup> lbf.ft	359x10 <sup>3</sup> lbf	134x10 <sup>3</sup> lbf					

**MOMENT LOAD CHART**  
Axial Load & Tilting Moment

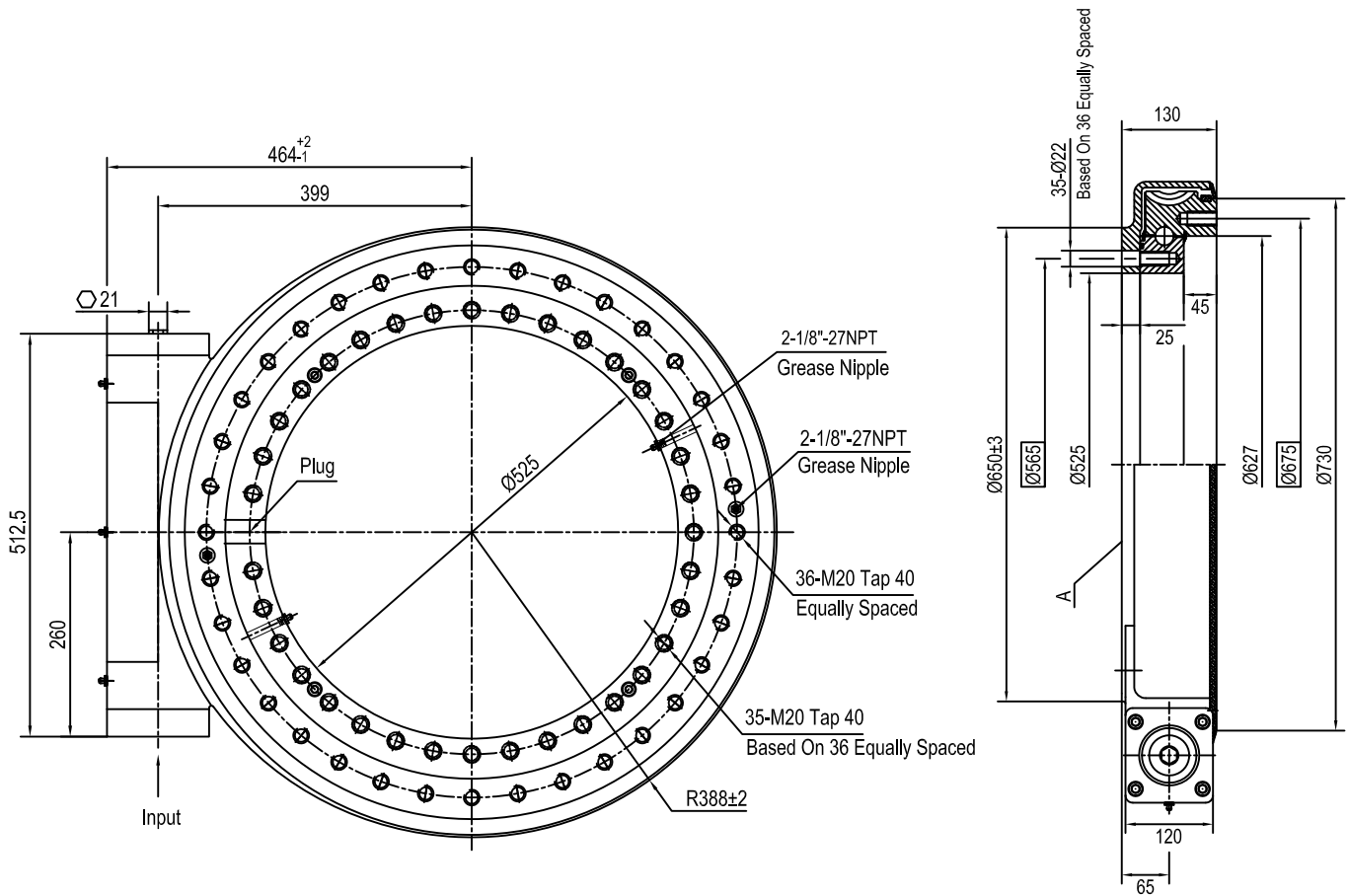


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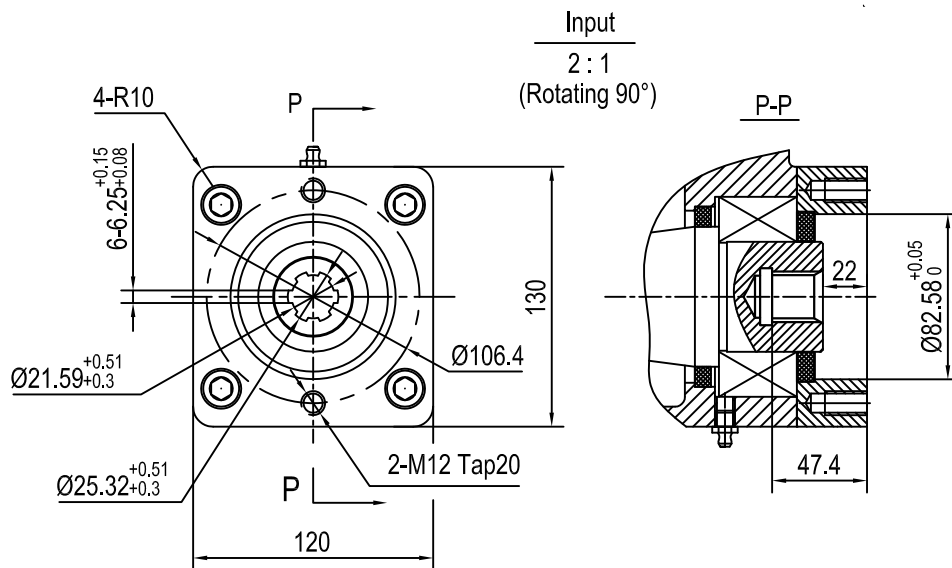
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**Slewing Drive**  
WE25



*Side A facing up when mounted.*

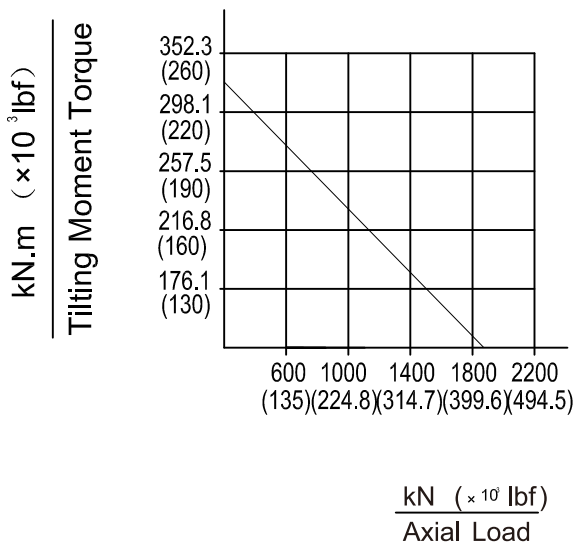




## Slewing Drive Performance Parameters

Data Model	Output Torque (max)	Tilting Moment Torque (max)	Holding Torque	Axial Load (max)	Radial Load (max)	Ratio of Worm Gear	Tracking Precision	Efficiency	Rated Output Speed	Weight (kg)
WE25	34.2kN.m	310kN.m	158.3kN.m	1850kN	690kN	104:1	≤0.1°	40%	<2.5rpm	169
	25240lbf.ft	229x10 <sup>3</sup> lbf.ft	117x10 <sup>3</sup> lbf.ft	416x10 <sup>3</sup> lbf	155x10 <sup>3</sup> lbf					

**MOMENT LOAD CHART**  
Axial Load & Tilting Moment



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