



HYDRA

WD7 - WD25

PART

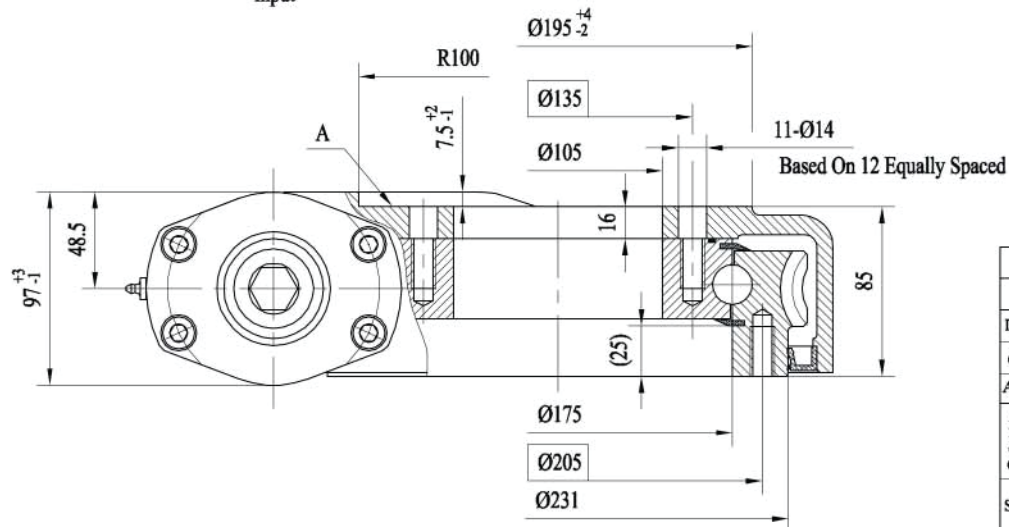
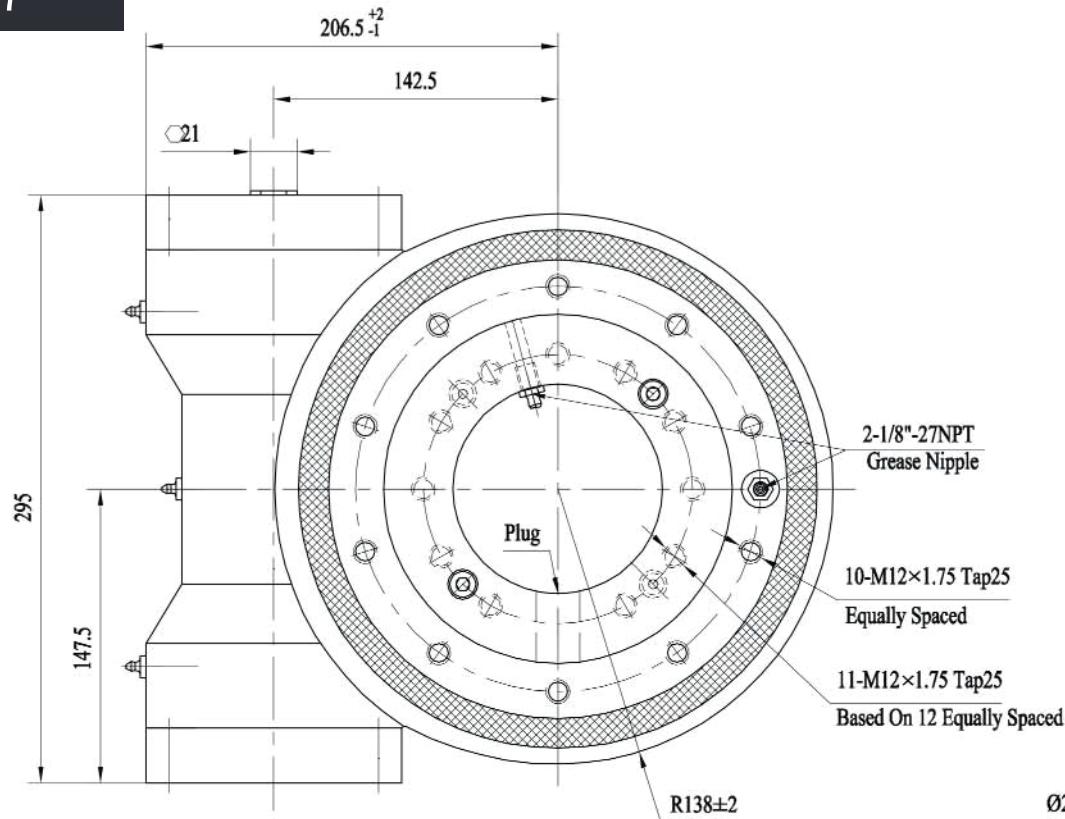
Worm Drives

High quality rotary bearing worm drive units operated hydraulically via the use of a hydraulic motor



Product Weights

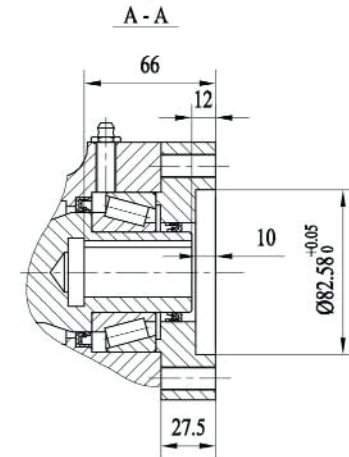
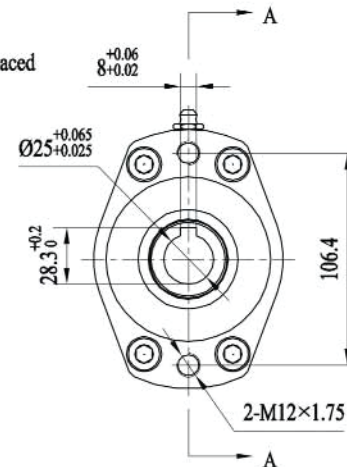
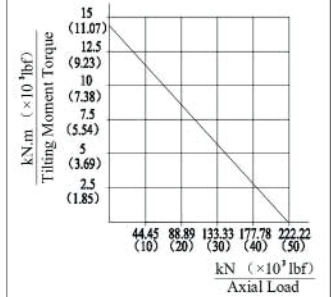
Product Code	Description	Weight (Kg)
HP-WD7	WD7 Worm Drive	35.00
HP-WD9	WD9 Worm Drive	53.00
HP-WD12	WD12 Worm Drive	66.80
HP-WD14	WD14 Worm Drive	75.00
HP-WD17	WD17 Worm Drive	96.00
HP-WD21	WD21 Worm Drive	172.00
HP-WD25	WD25 Worm Drive	202.00



Input

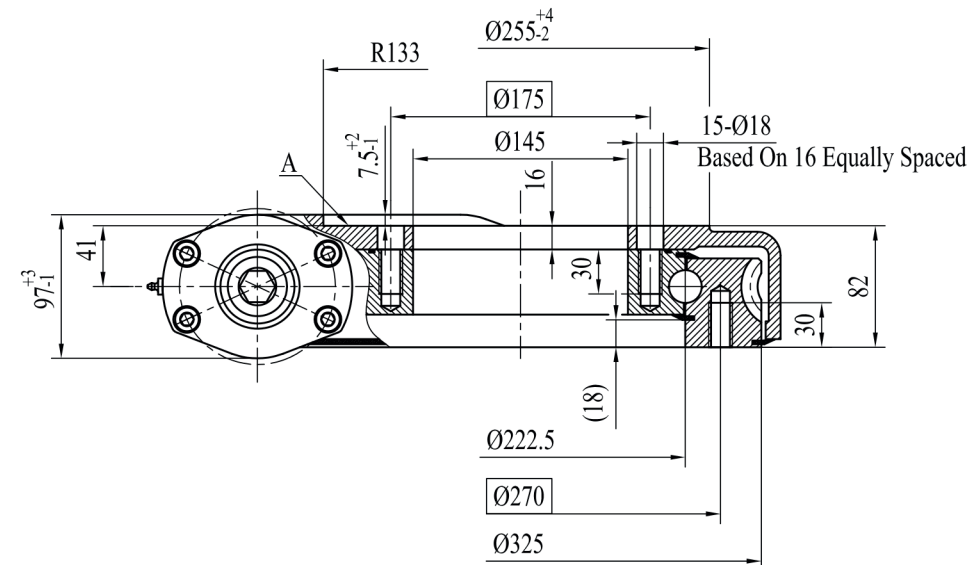
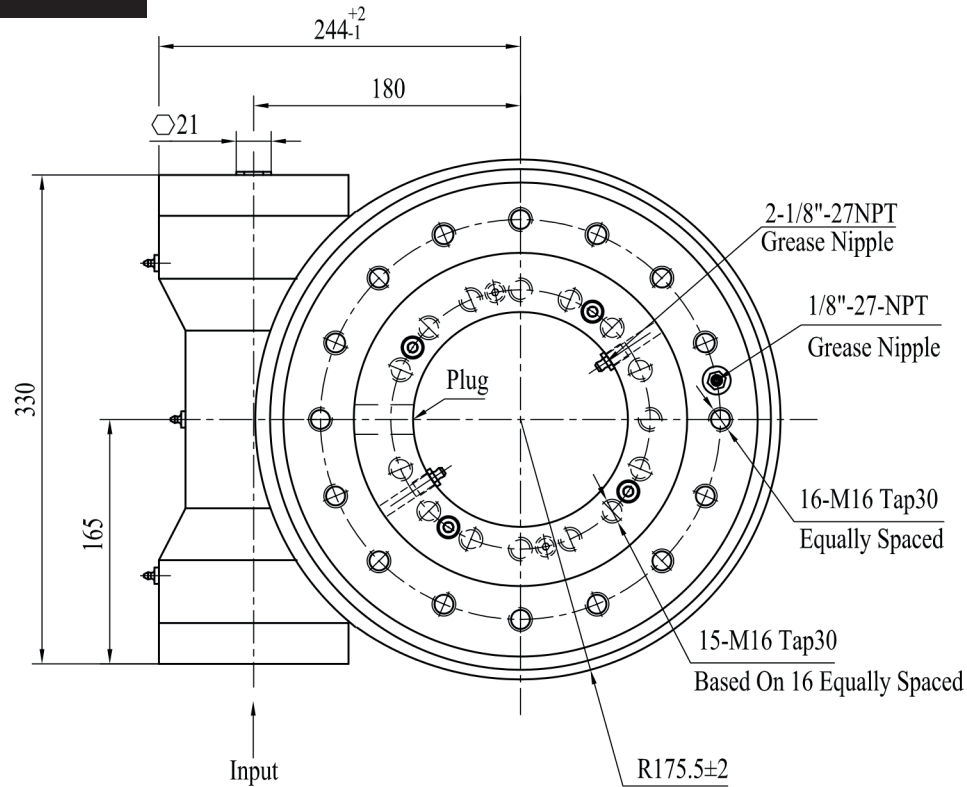
Worm Drive Performance Data		
Rated Output Speed	< 2.5 rpm	
Output Torque (Max.)	3.5 kN.m	2583 lbf.ft
Tilting Moment Torque (Max.)	14.2 kN.m	10.5 × 10 ³ lbf.ft
Holding Torque	20 kN.m	14.8 × 10 ³ lbf.ft
Axial Load (Max.)	210 kN	47.2 × 10 ³ lbf
Radial Load (Max.)	85 kN	19.1 × 10 ³ lbf
Ratio of Worm Gear	47:1	
Backlash	≤ 0.15 °	

MOMENT LOAD CHART
Axial Load & Tilting Moment

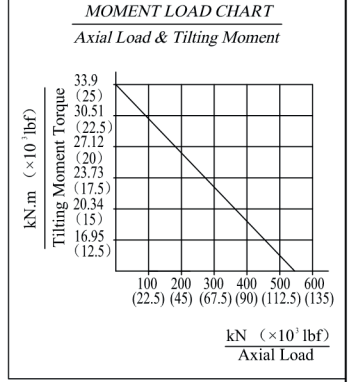


REV	DATE	REVISER	DESCRIPTION			
DESIGNED BY		11-11-2014				
CHECKED BY		11-11-2014				
APPROVED BY		11-11-2014				
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HERE OF ARE RESERVED, AND NO PERMISSION IS GRANTED OR TO DISCLOSE REPRODUCE THIS PRINT IN WHOLE OR IN PART, ANY OF THE INFORMATION TO OTHERS.			WEIGHT	SCALE	Title	WORM DRIVE
			SIZE	1:25	Model No.	
SYMBOLS ISO			SHEET	A3	Part No.	Rev
			1 / 1			C

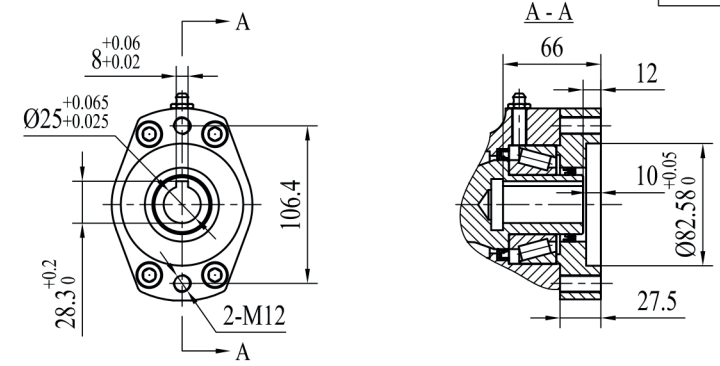
WD9



Worm Drive Performance Data		
Rated Output Speed	< 2.5 rpm	
Output Torque (Max.)	8 kN.m	5904 lbf.ft
Tilting Moment Torque (Max.)	33.9 kN.m	25.02×10 lbf.ft
Holding Torque	38.7 kN.m	28.56×10 lbf.ft
Axial Load (Max.)	550 kN	123.7×10 lbf
Radial Load (Max.)	205 kN	46.1×10 lbf
Ratio of Worm Gear	62:1	
Backlash	≤ 0.15 °	
Efficiency	40%	

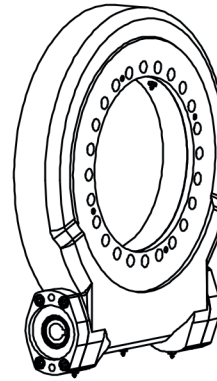
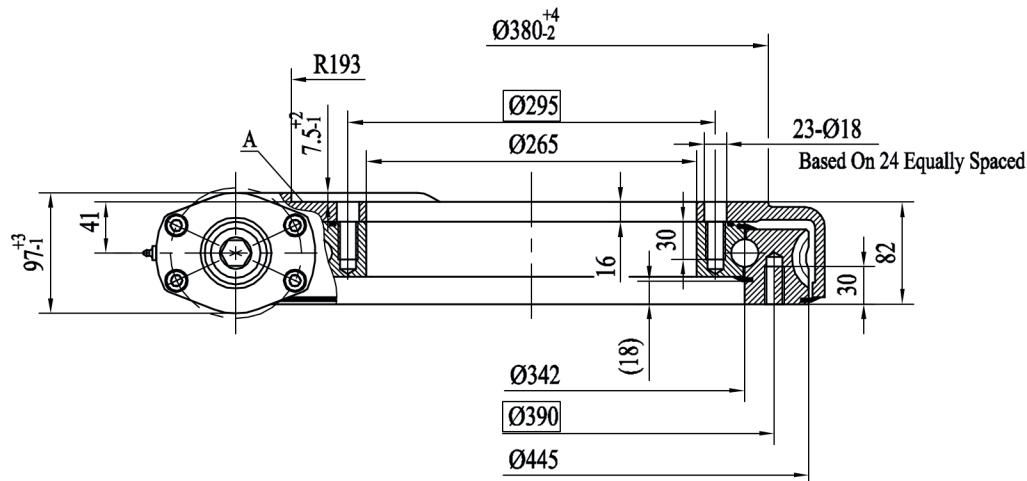
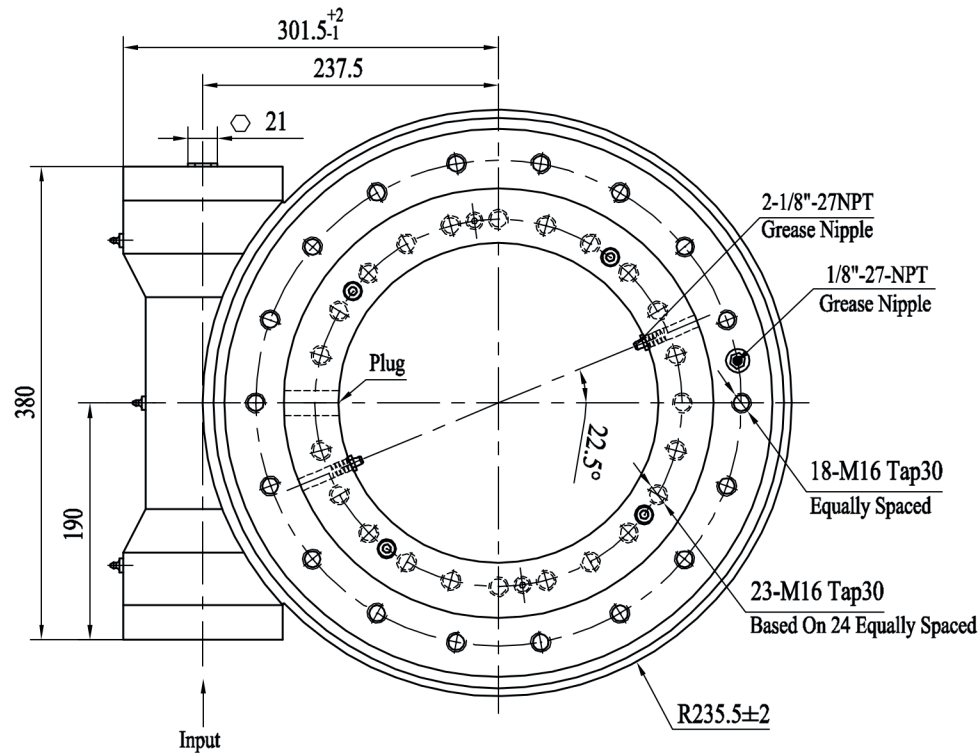


Input

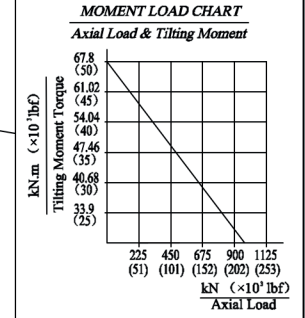


Note: Side A facing up when mounted.

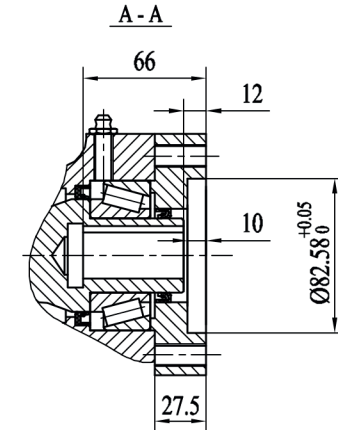
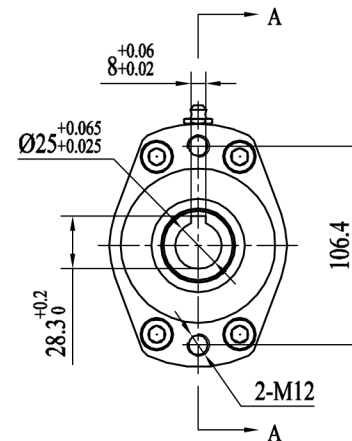
REV	DATE	REVISER	DESCRIPTION		
DESIGNED BY		22-01-2013			
CHECKED BY		22-01-2013			
APPROVED BY		22-01-2013			
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HERE OF ARE RESERVED, AND NO PERMISSION IS GRANTED OR TO DISCLOSE REPRODUCE THIS PRINT IN WHOLE OR IN PART, ANY OF THE INFORMATION TO OTHERS.			WEIGHT	SCALE	WORM DRIVE
			SIZE	1:3.5	
SYMBOLS ISO			SHEET	A3	WD9
			1 / 1	REV B	



Worm Drive Performance Data		
Rated Output Speed	< 2.5 rpm	
Output Torque (Max.)	10.8 kN.m	7970 lbf.ft
Tilting Moment Torque (Max.)	67.8 kN.m	50.2 × 10 ³ lbf.ft
Holding Torque	48 kN.m	35.4 × 10 ³ lbf.ft
Axial Load (Max.)	920 kN	207 × 10 ³ lbf
Radial Load (Max.)	343 kN	77.2 × 10 ³ lbf
Ratio of Worm Gear	86:1	
Tracking Precision	≤ 0.13 °	
Theoretical Static Efficiency	≈ 40%	

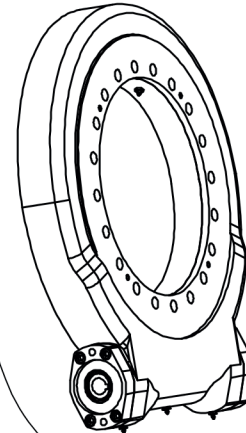
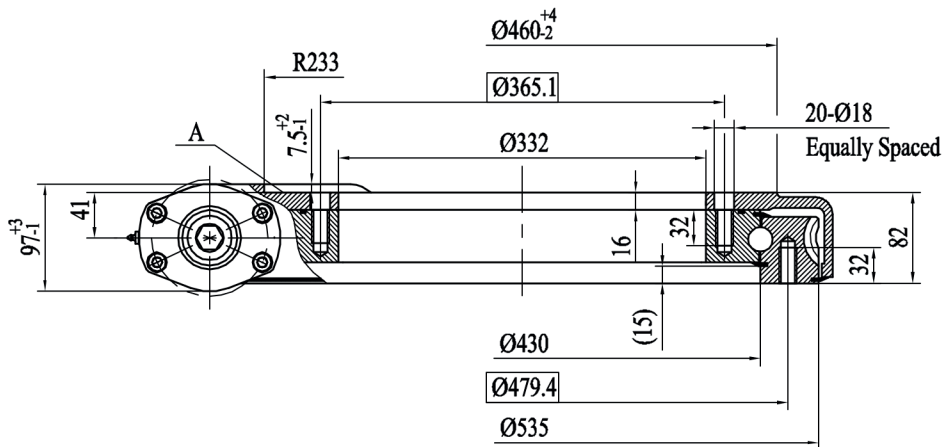
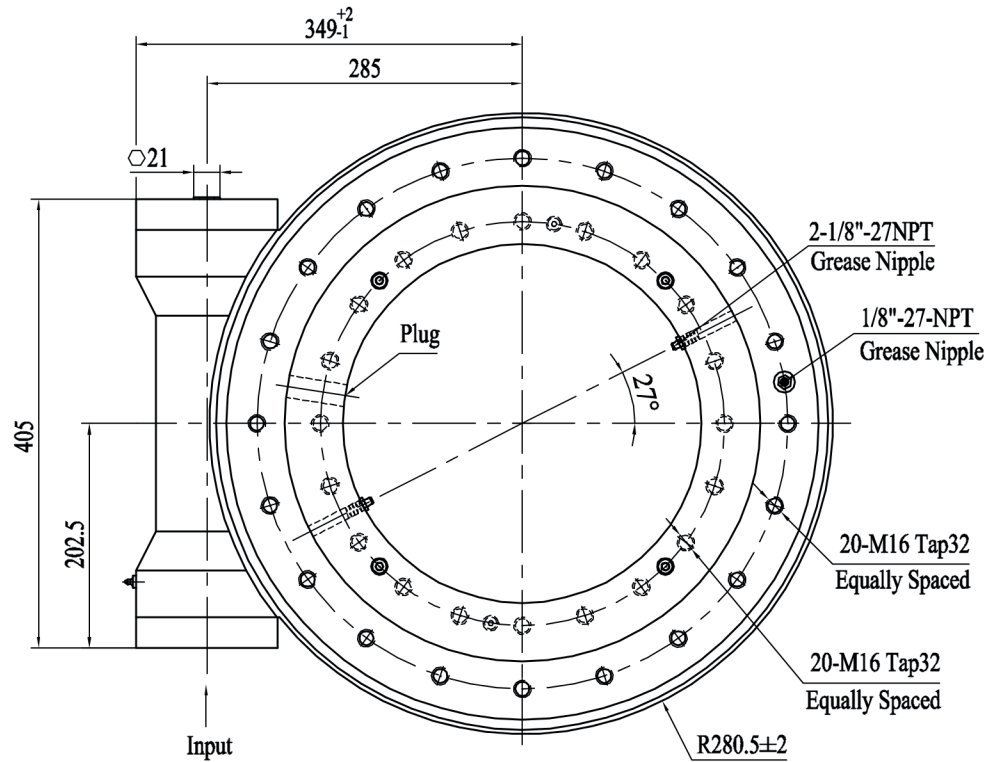


Input
1.5:1

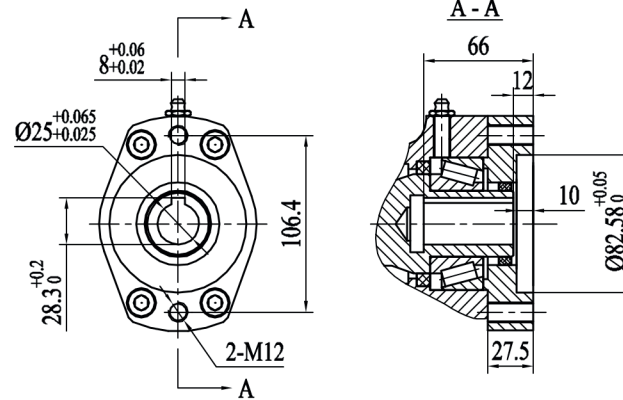


Note: Side A facing up when mounted.

REV	DATE	REVISOR	DESCRIPTION		
DESIGNED BY		29-10-2012			
CHECKED BY		29-10-2012			
APPROVED BY		29-10-2012			
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HERE OF ARE RESERVED, AND NO PERMISSION IS GRANTED OR TO DISCLOSE REPRODUCE THIS PRINT IN WHOLE OR IN PART, ANY OF THE INFORMATION TO OTHERS.			WEIGHT	SCALE	WORM DRIVE
			68.4	1:4	
SYMBOLS ISO			SIZE SHEET	/	WD14
					REV B



Input
1.5:1

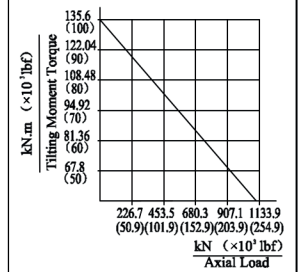


Worm Drive Performance Data

Rated Output Speed	< 2.5 rpm	
Output Torque (Max.)	12.96 kN.m	9564 lbf.ft
Tilting Moment Torque (Max.)	135.6 kN.m	100 × 10 ³ lbf.ft
Holding Torque	72.3 kN.m	53.4 × 10 ³ lbf.ft
Axial Load (Max.)	1110 kN	250 × 10 ³ lbf
Radial Load (Max.)	414 kN	93.2 × 10 ³ lbf
Ratio of Worm Gear	104:1	
Tracking Precision	≤ 0.1 °	
Theoretical Static Efficiency	≈ 40%	

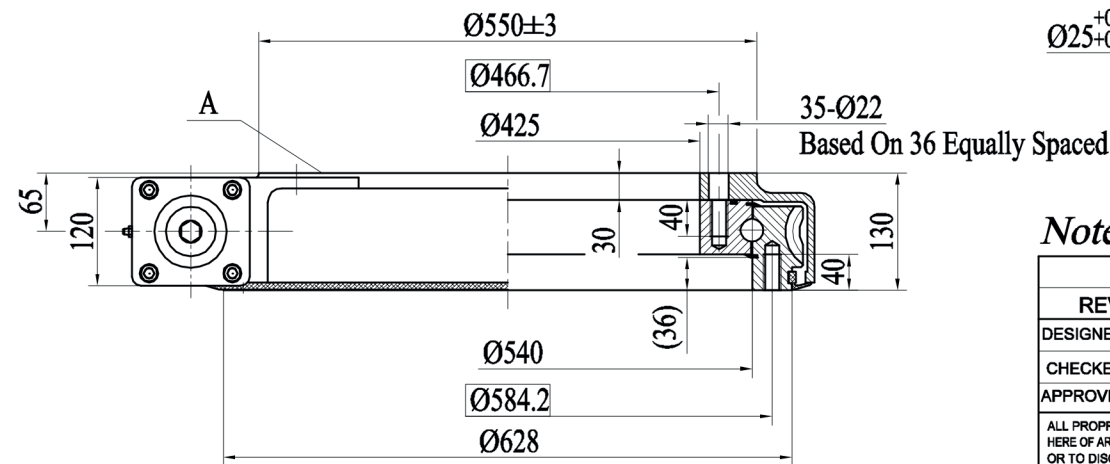
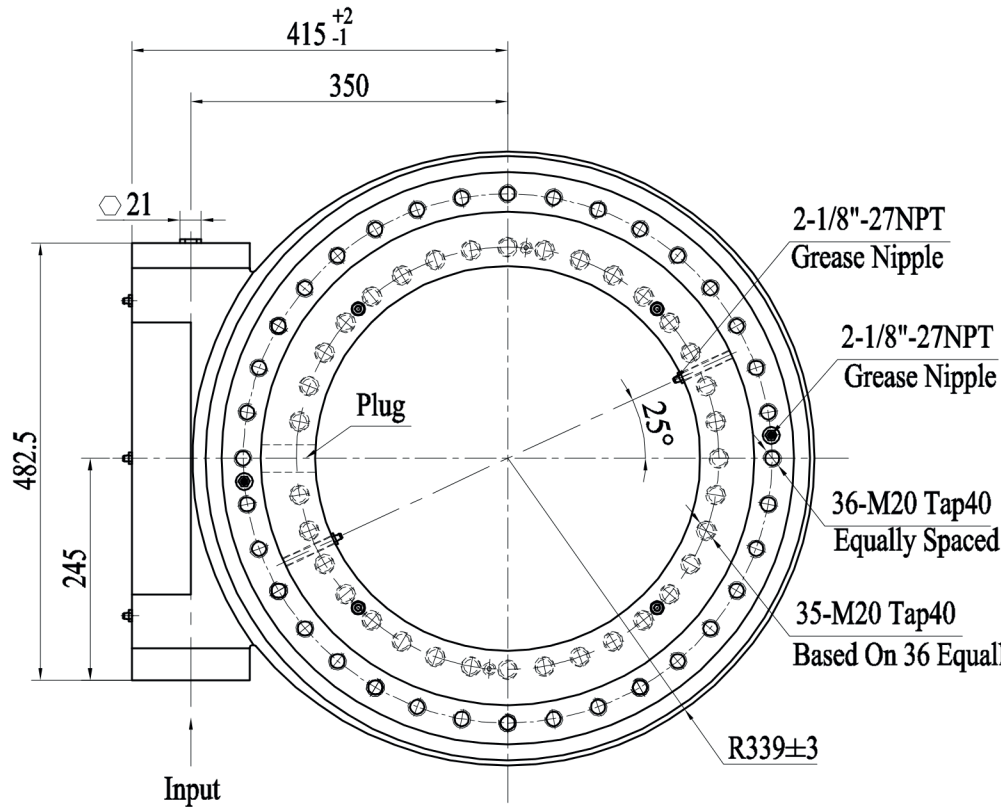
MOMENT LOAD CHART

Axial Load & Tilting Moment



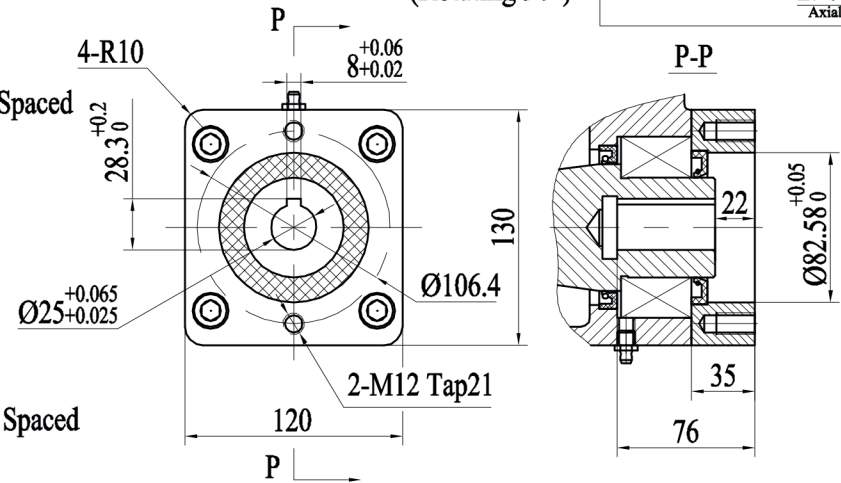
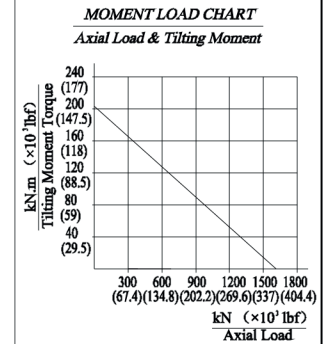
Note: Side A facing up when mounted.

REV	DATE	REVISOR	DESCRIPTION		
DESIGNED BY		28-01-2013			
CHECKED BY		28-01-2013			
APPROVED BY		28-01-2013			
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HERE OF ARE RESERVED, AND NO PERMISSION IS GRANTED OR TO DISCLOSE REPRODUCE THIS PRINT IN WHOLE OR IN PART, ANY OF THE INFORMATION TO OTHERS.			WEIGHT	SCALE	WORM DRIVE
				1:4.5	
SYMBOLS ISO			SIZE	A3	WD17
			SHEET	1 / 1	
					REV B



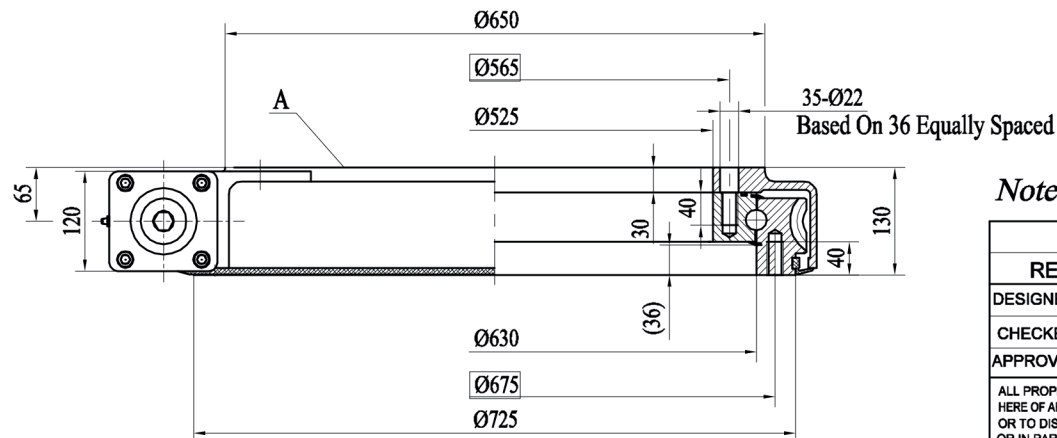
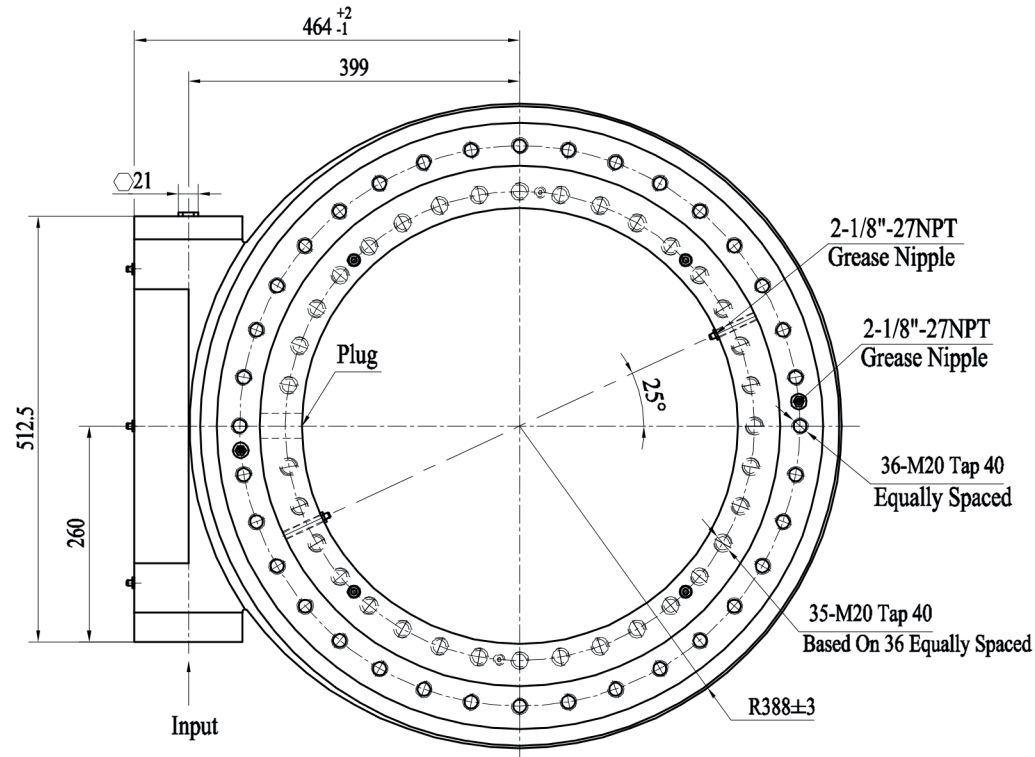
Input
2:1
(Rotating 90°)

Worm Drive Performance Data		
Rated Output Speed	< 2.5 rpm	
Output Torque (Max.)	28.7 kN.m	21180 lbf.ft
Tilting Moment Torque (Max.)	203 kN.m	150 × 10 ³ lbf.ft
Holding Torque	105.8 kN.m	78.1 × 10 ³ lbf.ft
Axial Load (Max.)	1598 kN	359 × 10 ³ lbf
Radial Load (Max.)	596 kN	134 × 10 ³ lbf
Ratio of Worm Gear	90:1	
Tracking Precision	≤ 0.1 °	
Efficiency	40%	

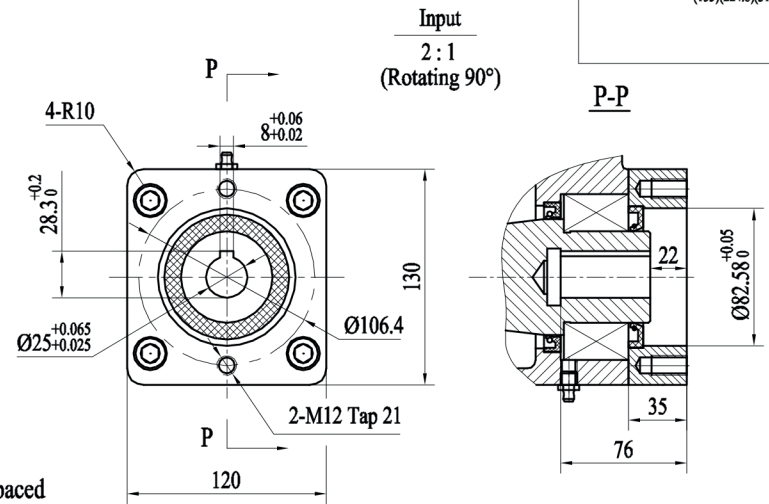
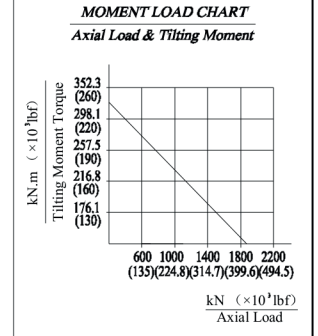


Note: Side A facing up when mounted.

REV	DATE	REVISOR	DESCRIPTION				
DESIGNED BY		15-08-2013					
CHECKED BY		15-08-2013					
APPROVED BY		15-08-2013					
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HERE OF ARE RESERVED, AND NO PERMISSION IS GRANTED OR TO DISCLOSE REPRODUCE THIS PRINT IN WHOLE OR IN PART, ANY OF THE INFORMATION TO OTHERS.			WEIGHT	SCALE	Article No.	WD21	Rev
			169kg	1:5.5			B
SYMBOLS ISO			SIZE SHEET	A3	Title	WORM DRIVE	Order No.
			1 / 1				



Worm Drive Performance Data		
Rated Output Speed	< 2.5 rpm	
Output Torque (Max.)	34.2 kN.m	25240 lbf.ft
Tilting Moment Torque (Max.)	310 kN.m	229 × 10 ³ lbf.ft
Holding Torque	158.3 kN.m	117 × 10 ³ lbf.ft
Axial Load (Max.)	1850 kN	416 × 10 ³ lbf
Radial Load (Max.)	690 kN	155 × 10 ³ lbf
Ratio of Worm Gear	104:1	
Tracking Precision	≤ 0.1 °	
Efficiency	40%	



Note: Side A facing up when mounted.

REV	DATE	REVISOR	DESCRIPTION				
DESIGNED BY		15-08-2013					
CHECKED BY		15-08-2013					
APPROVED BY		15-08-2013					
ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HERE OF ARE RESERVED, AND NO PERMISSION IS GRANTED OR TO DISCLOSE REPRODUCE THIS PRINT IN WHOLE OR IN PART, ANY OF THE INFORMATION TO OTHERS.			WEIGHT	SCALE	Article No.	WD25	Rev B
			199 kg	1:6			
SYMBOLS ISO			SIZE SHEET	A3 1 / 1	Title	WORM DRIVE	Order No.