



**TGB GROUP
TECHNOLOGIES**



SLEWING DRIVES CATALOGUE



YOU CALL, WE PRODUCE



we *move*

Your movement solutions

TGB GROUP TECHNOLOGIES

With over 20 years of experience in bearings, gears and power transmission, the TGB Group has become a global leader in the development and production of movement solutions for the industrial and renewable energy markets. The TGB Group has manufacturing facilities on different continents which enables us to provide competitive solutions and customise projects while being able to retain a flexible manufacturing system and offer worldwide deliveries!

Our aim is to forge long lasting relationships with our customers by demonstrating our commitment throughout the engineering process, by exceeding customer expectations, by providing excellent service and by offering the best value for money.

Our knowledge and experience will enable you to make the right choice!

TGB Group Technologies S.L.







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www.tgb-group.com

Ed. 5 (JUL-18)

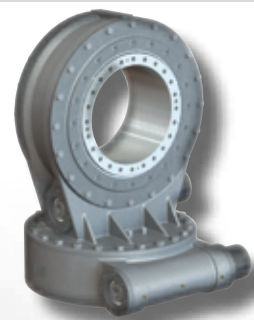
APPLICATION EXAMPLES - INDUSTRIAL



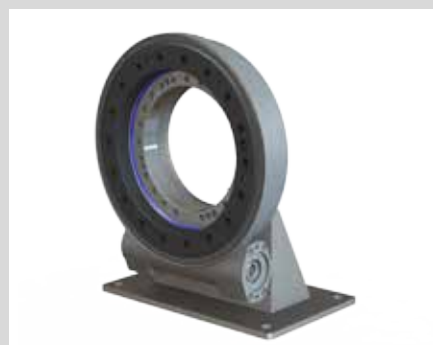
APPLICATION EXAMPLES - INDUSTRIAL



APPLICATION EXAMPLES - SOLAR



APPLICATION EXAMPLES - SOLAR

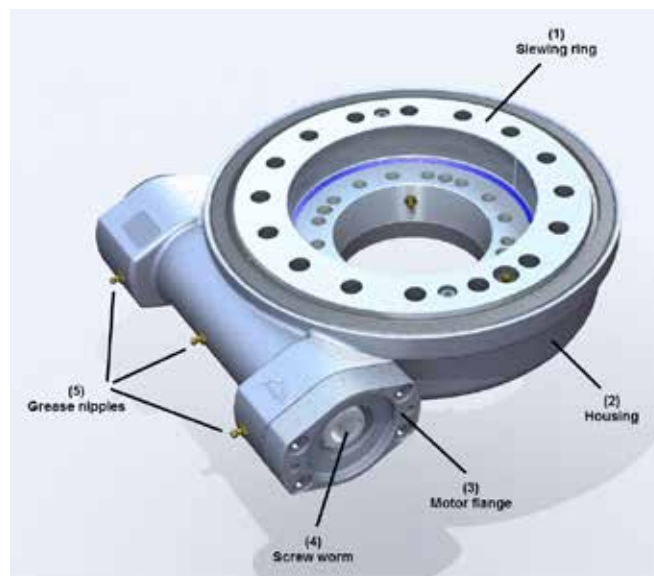


BASIC INSTRUCTIONS

1. INTRODUCTION

Slewing drives are compact rotary systems designed to be installed directly on the customer's applications which give rotational movement to the structure while at the same time are able to withstand high loads and critical environmental conditions due to its enclosed system.

Slewing drives are composed by a slewing ring (1), mounted on or inside a housing (2) which is where it is also assembled the screw worm (4) which is the part in charge of the transmission of the torque to the slewing ring. Inside that housing, there are also a couple of bearings which hold the screw worm together with their corresponding motor cap and encoder cap (3). These caps can be adapted to fit directly a hydraulic motor or a gearbox by means of an adapter flange. The drive has its own grease nipples (5) that allow the re-greasing of the slew drive for maintenance.



2. TGB GROUP SLEW DRIVES

TGB Group has different slew drives models prepared for different kind of applications.

- **BE Series:** Slew drive with high precision and low backlash for industrial applications. Fully enclosed with lip seals to ensure an IP65 on the system. With globoid slewing ring teeth and straight screw worm provides more smoothness on the rotational movement but reduces the maximum allowable torque.
- **LBE Series:** Light version of the BE series with aluminum housing to reduce the system weight.
- **TE Series:** Slew drive with globoid screw worm and helicoidal teeth on the slewing ring, which is able to withstand high loads due to its 4 teeth in contact. This kind of slew drive is prepared for high torque applications like solar plants and uses a lip seal to guarantee the IP65.
- **TGE Series:** Low cost slew drive similar to the TE series with lower precision and with a simple seal between the slewing ring and the housing.
- **TGO Series:** Open version of the TGE series for applications in clean environments.
- **TGZ Series:** Vertical serie with a slewing ring inside the housing.
- **TVR Series:** Vertical serie that uses bearings or bushings to fix the geared ring inside the housing.
- **DAD Series:** Combined Vertical and Horizontal series to give a full rotational movement in azimuth and zenith directions.

All the drives mentioned above can be adapted according to clients requirements, for example adding some of the following modifications: splined shaft, slewing rings with double raceway, holes in imperial, etc.

BASIC INSTRUCTIONS

3.SLEWING DRIVES CHARACTERISTICS

Slewing drives present some characteristics that should be taken into account to choose the proper series for each application. The main points to consider are the ones following:

- The maximum output speed must be less than 1rpm.
- The standard temperature working range of a slewing drive is established between -20 and 70°C.
- The slewing drives can be used both in horizontal and in vertical position. In case installing it in vertical position it is recommended to fix the slew drive with the screw worm on the lower position. For other mounting positions please consult the TGBgroup Technical department.
- The load diagrams for each drive show its limit static load with a safety factor of 1. TGBgroup recommends adding an application factor to the loads according to the following table. To ensure the drive chosen is the right one, the load case of the application must be below the limit curve.

Application	Application criteria	Application factor
Casting	Extreme application	1.5
Machines for building / cranes	Extreme application	1.25
Vehicles and mounting on vehicles	Extreme application	1.25
Forklifts / Bulldozers	Light shocks	1.1
Treatment plants	Vibrations	1.25
Wind turbines	Danger of streaking	2.0
Robots	Rigidity	1.25
Antennas	Precision	1.5
Machines-tool	Precision	1.5
Measurement technique	Smooth operation	2.0

The load diagrams are also limited by the bolts. They are only valid if all the bolts of the slewing drive are used to fix it to the structure. The quality of the bolts is considered grade 10.9, the threaded length should be at least 1.5 times the bolt diameter and the recommended flange thickness 2 times the bolt diameter. If the bolt curve does not appear in the chart, this means that this curve is above the slewing ring chart.

In case you have questions regarding the application for breach of any point of the ones mentioned above or various load cases are applied, we recommend contacting TGBgroup Technical Department. In case the slewing drive chosen does not adapt to your application we recommend consulting the slewing ring catalogue, as there exist a major variety of products and features.

TGBgroup offers also the possibility of making customized designs in case none of the slew drives that appear on this catalogue fit for your application. TGBgroup can also offer a complete solution including motor and gearbox calculated following the loads supplied by the customer according to each application.

BASIC INSTRUCTIONS

4.TRANSPORT, HANDLING AND STORAGE

Transport only in horizontal position avoiding possible impacts. The vertical series should be transported and stored in vertical position. The slewing drive should be manipulated carefully and wearing working gloves all the time. The threaded holes can be used to fix eyebolts to handle the slewing drive in a safety way with a hoisting device. Store always in horizontal position and in closed rooms. Keep it away from areas where it could get wet.

5.INSTALLATION

Previous to the installation, a cleaning of the slewing drive and the structure where is going to be mounted must be done. It is not allowed the use of steam high pressure systems. Before the installation of the slew drive on the structure, please check the slew drive for physical damage and ensure that the drive moves smoothly. If the slew drive makes noise before installation, please check whether lubrication is good enough.

It should be checked that the slewing drive is fully supported by the structure. The supporting surface must accomplish some requirements considering a maximum flatness deviation. The maximum value for flatness deviation can be reached only once each 180°. The maximum values for each size of slew drive are shown on the table below.

Slew Drive Size		236	314	435	523	639
Flatness deviation	[in]	0.004	0.005	0.006	0.006	0.008
	[mm]	0.1	0.12	0.15	0.15	0.2

The slewing drive must be mounted without any external loads. It is convenient to perform working tests in the structure before the loads are applied.

The bolts used must be from the dimension, quantity and quality indicated. Bolts with a fully threaded shaft and split washers should not be used. The grip ratio (grip length divided by the diameter of the bolt) shall be observed, from minimum ≥ 2 to maximum ≤ 10 (recommended value 5). The threaded length should be at least 1.5 times the bolt diameter. The slew drive function, lifespan, and durability of the bolt connection are affected in case of non-compliance of the above mentioned points. On the below table the recommended tightening torques for each bolt size can be observed.

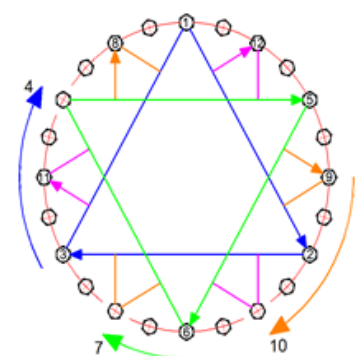
Mounting bolt dimension	Tightening torque (Nm) Quality grade 10.9
M6	15 ± 1
M8	37 ± 3
M10	72 ± 6
M12	126 ± 10
M16	312 ± 25
M20	609 ± 50

Mounting bolt dimension	Tightening torque (lbs·ft) Quality grade 10.9
1/4-20 UNC	12 ± 1
5/16-18 UNC	24 ± 2
3/8-16 UNC	45 ± 4
1/2-13 UNC	110 ± 7
5/8-11 UNC	210 ± 18
3/4-10 UNC	380 ± 36

For the tightening of the bolts, the following procedure should be followed in order to avoid deviation between bolt tightening forces:

- Slightly apply thread locker to the bolt threads (last three to five filets) in order to ensure uniform frictional resistance.
- Preload the bolts crosswise in 3 steps: 30%, 80% and 100% of the tightening torque. The scheme shows the order to be followed when tightening the bolts.

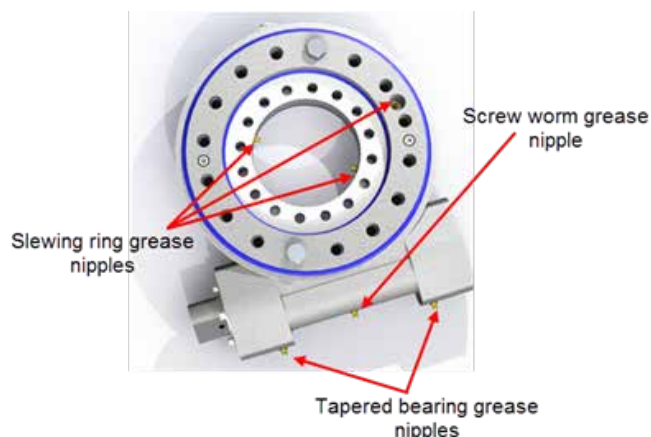
Once the screw is tightened, mark the surface of the screw and the structure surface. It is useful to inspect the bolts tightening



BASIC INSTRUCTIONS

6.LUBRICATION

For all applications a proper lubrication is necessary for a smooth operation of the slewing drive. All the TGBgroup slew drives are supplied slightly pre-lubricated but it is always recommended to add grease prior to initial operation. There are three parts that need to be lubricated: the slewing ring raceway, the screw worm and the bearings.



The quantity of grease required is around 60cc for the screw worm, 10cc for each tapered roller bearing and 10cc each 250mm of diameter for the slewing ring raceway. The procedure to regrease consists in injecting grease into all grease nipples one after the other while rotating the slewing drive. The slewing drives must be regreased after each cleaning and also before and after large periods of inactivity.

Re-lubrication is needed to assure a minimum quality on the grease inside the drive. In case no comparative results are available, the following table can be used as a reference.

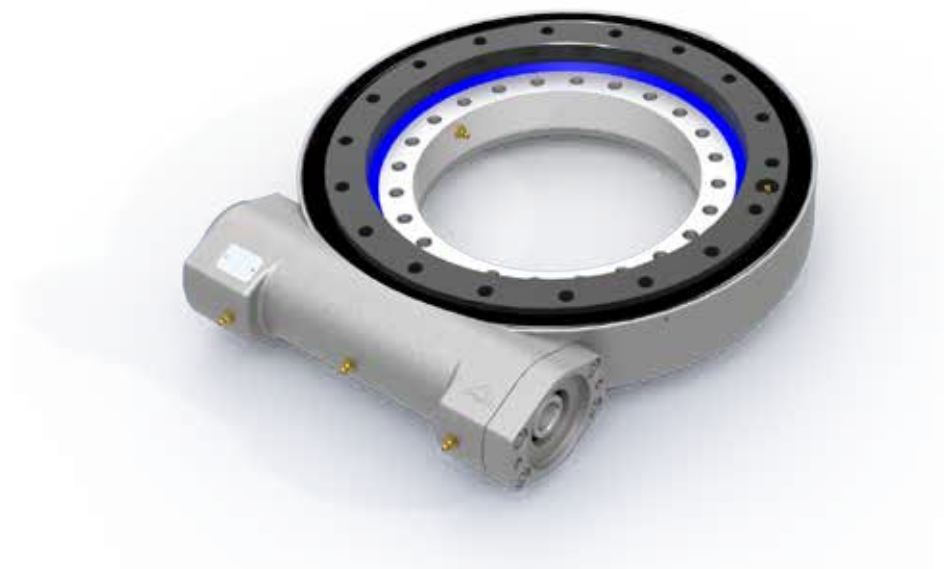
Working conditions	Slewing Ring and Screw Worm Re-lubrication intervals
Rotational speeds <0,5rpm Non extreme environmental conditions (solar trackers)	Every 400 hours of operation or once every 12 months
Rotational speeds >0,5rpm Non extreme environmental conditions (man lift, industrial applications)	Every 200 hours of operation or once every 6 months
Extreme climatic conditions (sea / desert / Arctic climate / very dirty surrounding) (tunnelling machines/steel mills)	Every 100 hours of operation or once every 3 months
Bearing re-lubrication intervals	
All working conditions	Every 400 hours or every 12months

To choose the proper type of grease for each application, please contact TGBgroup technical department.

7.MAINTENANCE / SECURITY CONTROLS

TGBgroup recommends retightening the bolts to the prescribed torque after no more than 100 working hours to compensate the possible settling. This should be done without external loads applied on the bolts union. This inspection should be repeated from then on every 3 months of working. The frequency of the inspection must be reduced under special working conditions.

BE SERIES



DESCRIPTION

The BE series consists in a straight screw worm and a globoid slewing ring which guarantees a smooth and controlled rotation of the slew drive by sacrificing the maximum holding torque that the teeth can withstand.

This kind of slew drive includes an external lip seal that provides a higher protection against dust and water.

MAIN FEATURES

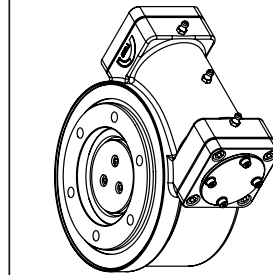
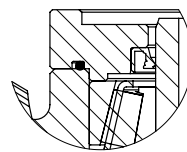
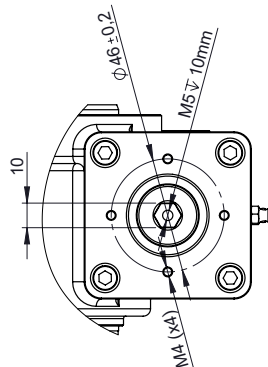
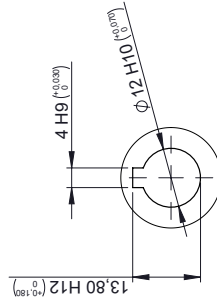
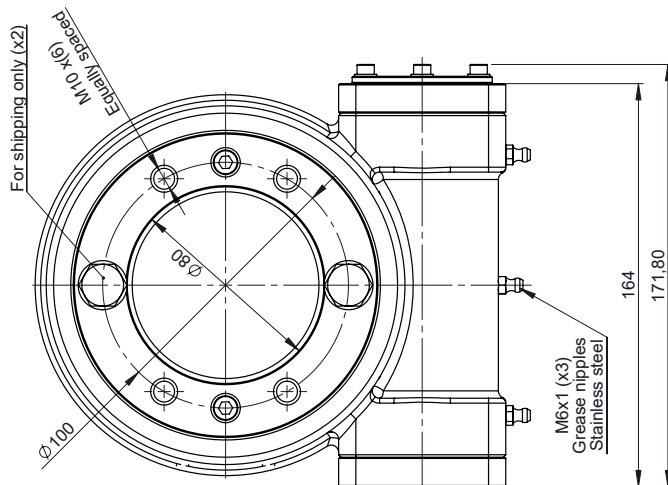
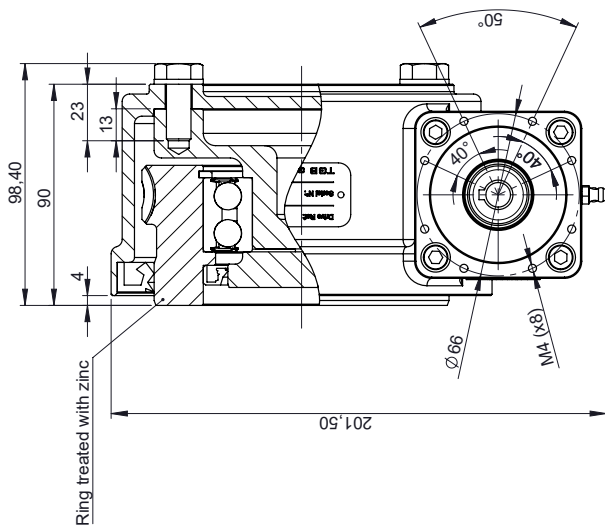
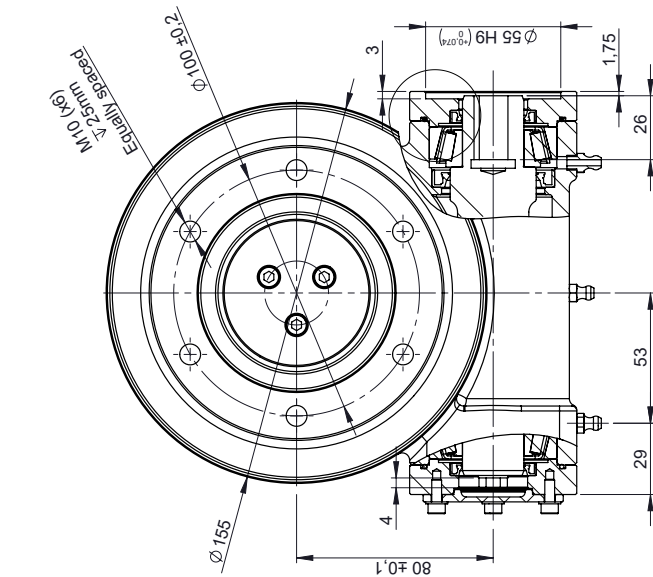
- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Robotics, Offshore applications, Grabs, Excavators, Trailers, Cranes, Antennas, Aerial platforms, Forklifts, etc.

BE SERIES

METRIC



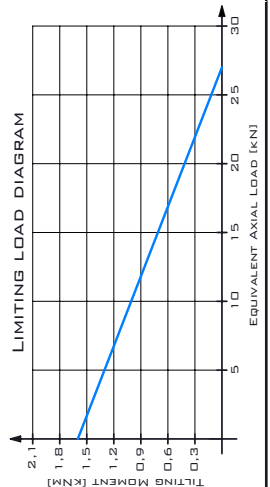
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TGB	

Reference	
>1200	±1.2
>400.0 - 1200	+0.8
>120.0 - 400.0	+0.5
>30.0 - 120.0	+0.3
>6.0 - 30.0	+0.2
>3.0 - 6.0	+0.1
>0.3 - 3.0	+0.1
Range of sizes	Unlimited
Tolerance	

SHAFT: Ø 12MM KEYS SHAFT

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Units: mm	Denomination
MATERIAL:	Sales Drawing
SCALE:	WEIGHT [kg]: 10.28
	NUM. PIECES: 1
	SHEET: 1 of 1

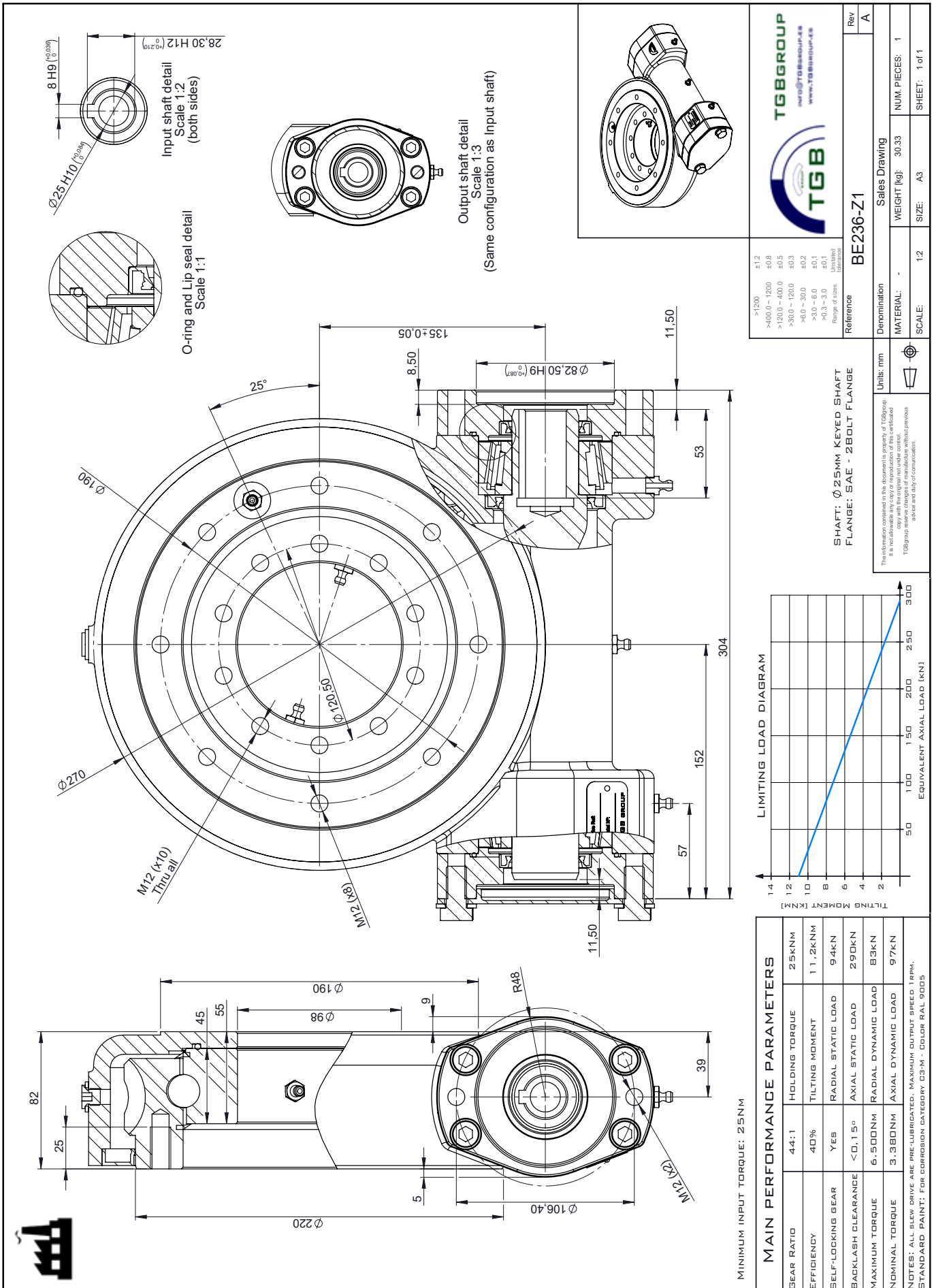


MAIN PERFORMANCE PARAMETERS			
GEAR RATIO	62:1	HOLDING TORQUE	950NM
EFFICIENCY	30%	TILTING MOMENT	1.6KNM
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	15kN
BACKLASH CLEARANCE	<0.34°	AXIAL STATIC LOAD	27kN
NOMINAL TORQUE	400NM	RADIAL DYNAMIC LOAD	7.6kN
MAXIMUM TORQUE	800NM	AXIAL DYNAMIC LOAD	8.7kN

NOTES: ALL NEW DRIVES ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED: 1000 RPM. LOADS VALID FOR 10,000 WORKING HOURS AT 0.025MPa. ALL SCREWS DIAPHRAGM TREATED.

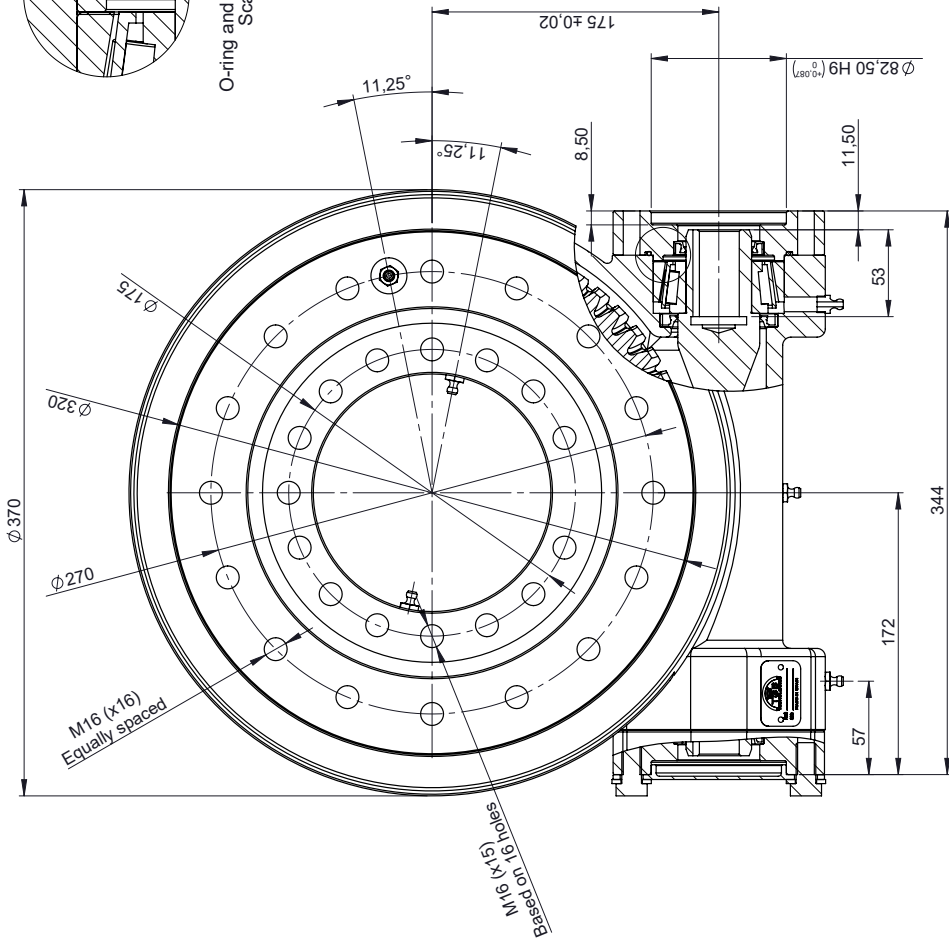
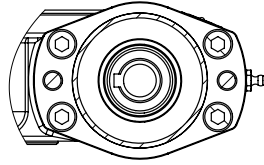
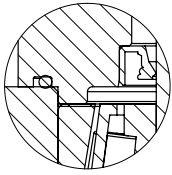
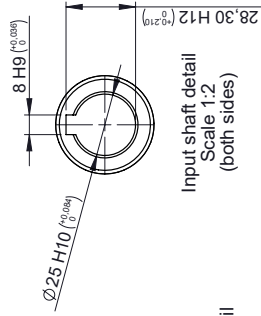
BE SERIES

METRIC



BE SERIES

METRIC

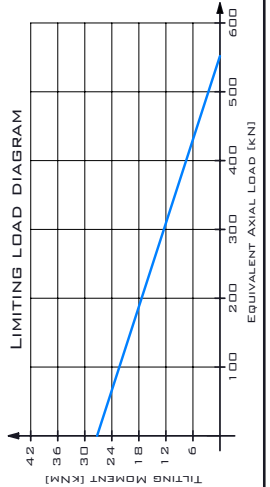


MINIMUM INPUT TORQUE: 25NM

MAIN PERFORMANCE PARAMETERS

GEAR RATIO	6:1:1	HOLDING TORQUE	34kNm
EFFICIENCY	40%	TILTING MOMENT	27,5kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	204kN
BACKLASH CLEARANCE	<0.1 D°	AXIAL STATIC LOAD	547kN
MAXIMUM TORQUE	9.100NM	RADIAL DYNAMIC LOAD	132kN
NOMINAL TORQUE	4.480NM	AXIAL DYNAMIC LOAD	154kN

NOTES: ALL BEW DRIVE ARE PRELUBRICATED. MAXIMUM OUTPUT SPEED: 1 RPM.
STANDARD PAINT: FOR CORROSION CATEGORY C3-M - COLOR RAL 9005



SHAFT: Ø25MM KEYS
FLANGE: SAE - 2BOLT FLANGE

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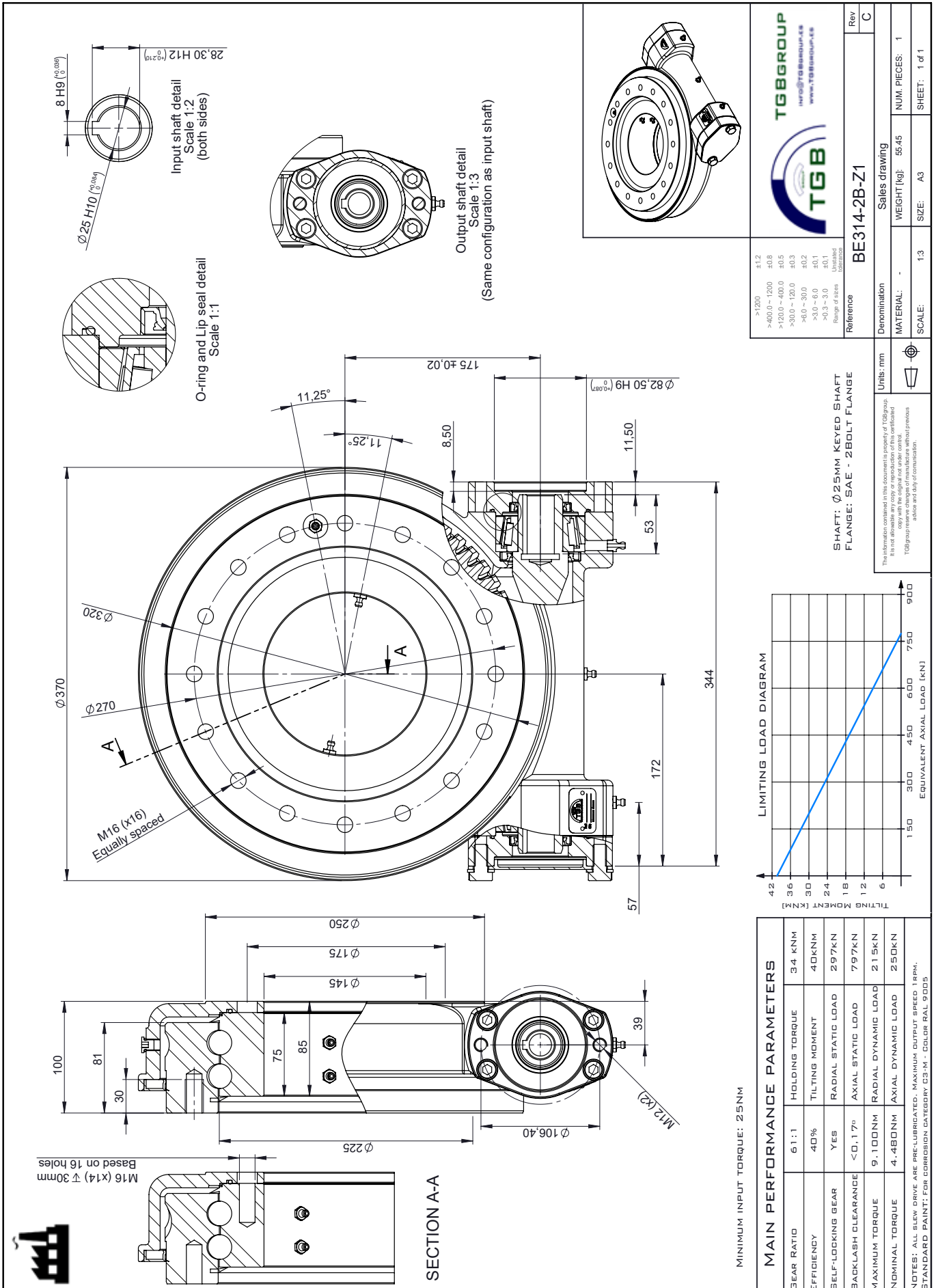


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Rev	C
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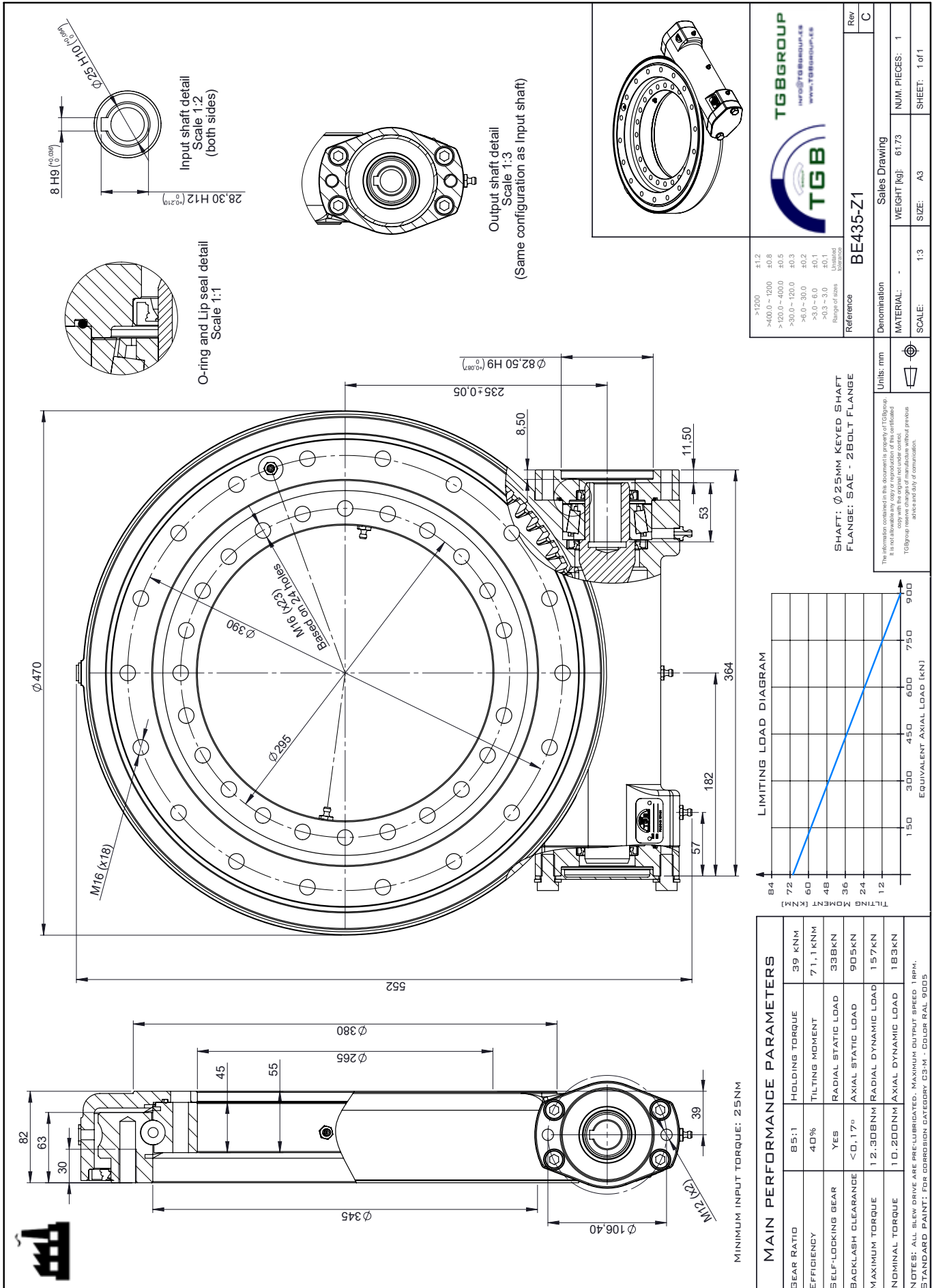
BE SERIES

METRIC



BE SERIES

METRIC



METRIC

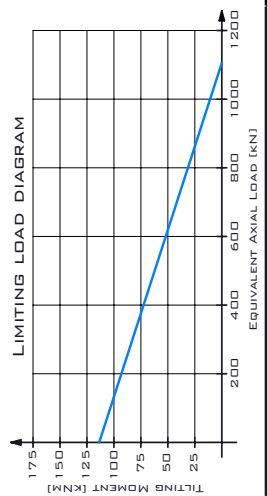


Reference	BE523-Z1		Rev	C
Denomination		Sales Drawing		
MATERIAL:	-	WEIGHT (kg):	82.65	NUM. PIECES: 1
SCALE:	1:4	SIZE:	A3	SHEET: 1 of 1

SHAF: $\varnothing 25\text{MM}$ KEYED SHAFT FLANGE: SAE - 2BOLT FLANGE	Units: mm 
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BACKLASH CLEARANCE	<0.17°	AXIAL STATIC LOAD	1107KN
MAXIMUM TORQUE	15.600NM	RADIAL DYNAMIC LOAD	170KN
NOMINAL TORQUE	14.700NM	AXIAL DYNAMIC LOAD	198KN

NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 18PM.
STANDARD PAINT: FOR CORROSION CATEGORY C3-M - COLOR RAL 9005



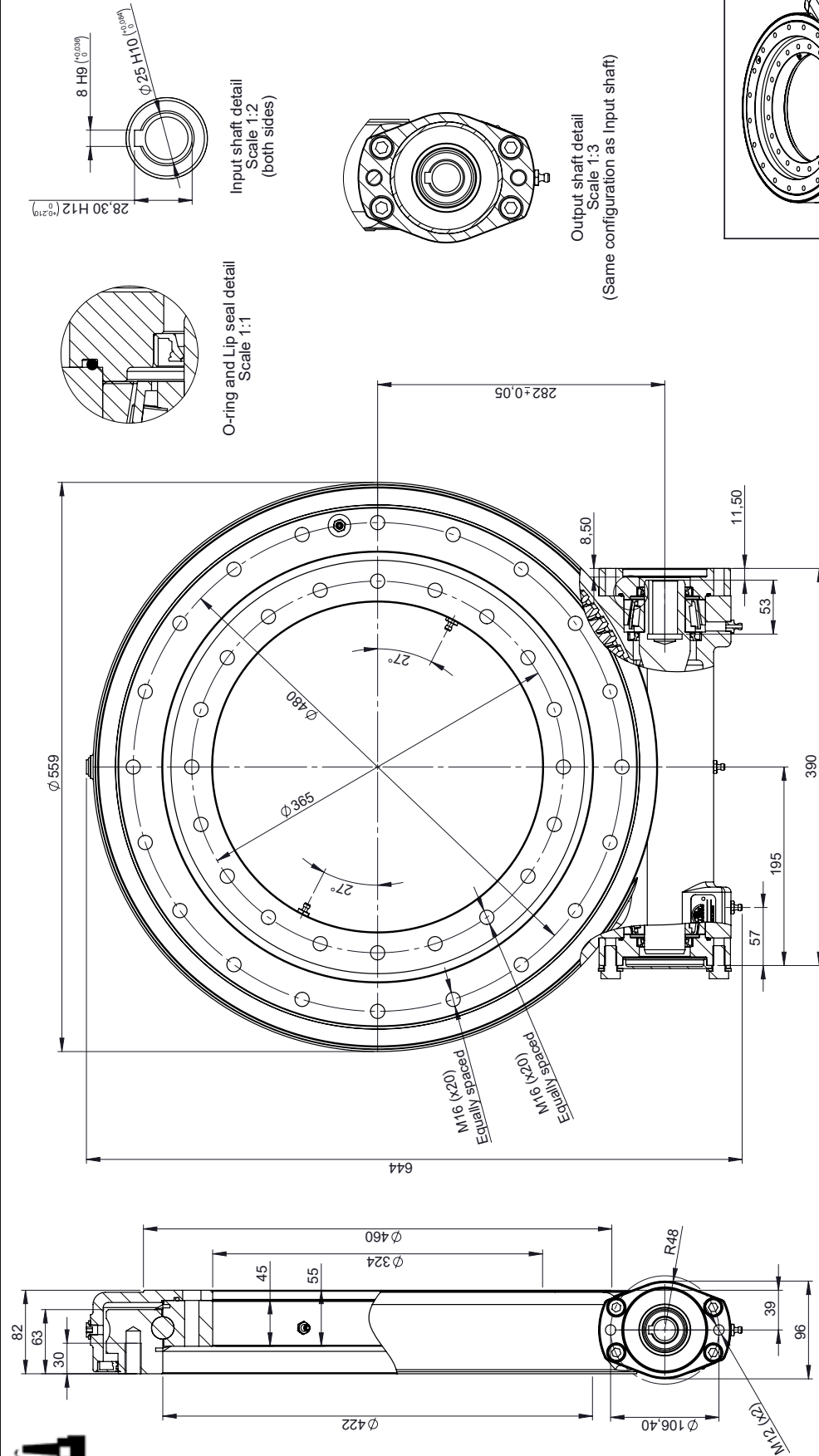
MINIMUM INPUT TORQUE: 25NM

MAIN PERFORMANCE PARAMETERS

GEAR RATIO	103:1	HOLDING TORQUE	41 KNM
EFFICIENCY	40%	TILTING MOMENT	111.6KNM
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	413KN
BACKLASH CLEARANCE	<0.17°	AXIAL STATIC LOAD	1107KN
MAXIMUM TORQUE	15.600NM	RADIAL DYNAMIC LOAD	170KN
NOMINAL TORQUE	14.700NM	AXIAL DYNAMIC LOAD	198KN

NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1RPM.
STANDARD PAINT: FOR CORROSION CATEGORY C3-M - COLOR RAL 9005

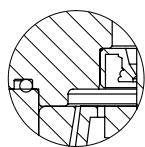
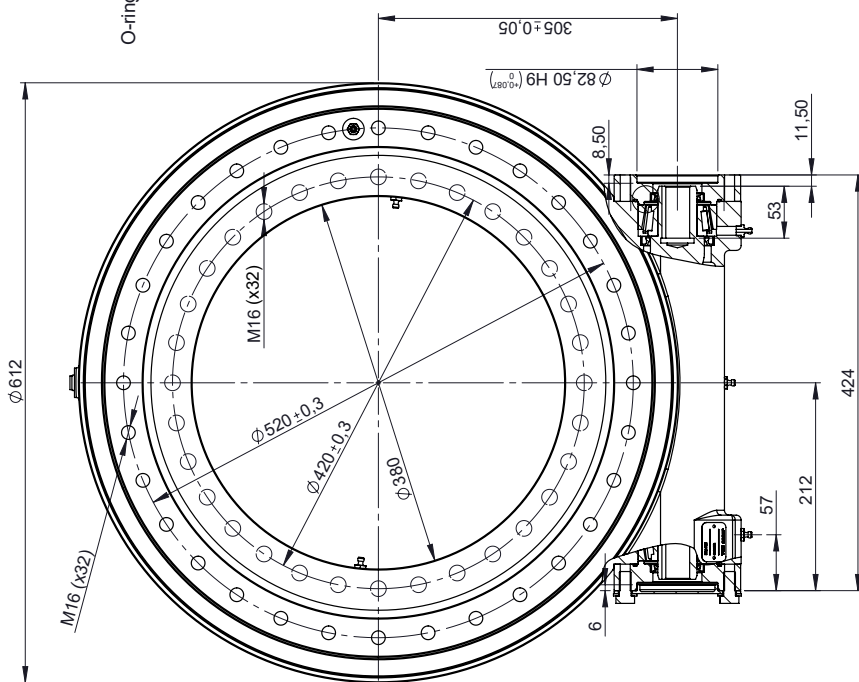
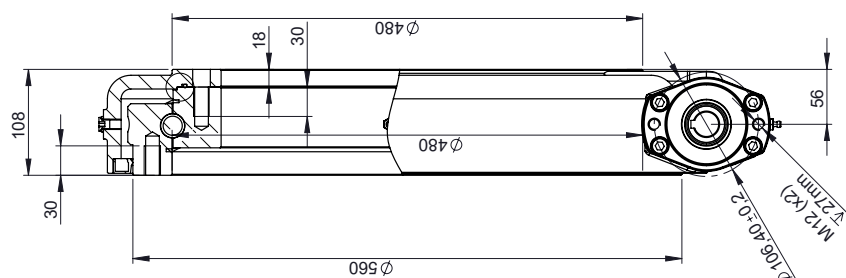
NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1RPM.
STANDARD PAINT: FOR CORROSION CATEGORY C3-M - COLOR RAL 9005



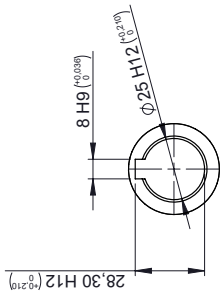
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BE SERIES

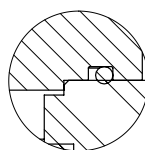
METRIC



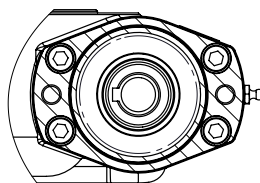
O-ring and Lip Seal Detail
Scale 1:1



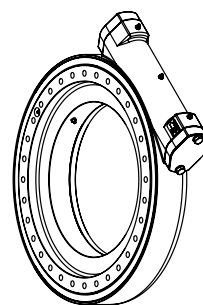
Input Shaft Detail
Scale 1:2



O-ring Detail (Housing)
Scale 1:1



Output shaft detail
Scale 1:3
(Same configuration as Input shaft)



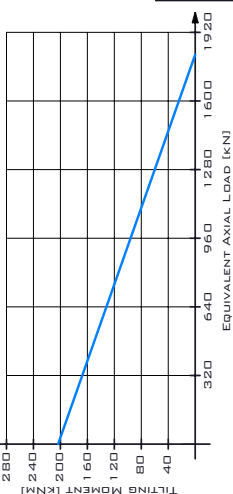
MINIMUM INPUT TORQUE: 25NM

MAIN PERFORMANCE PARAMETERS

GEAR RATIO	92:1	HOLDING TORQUE	*35.5kNm
EFFICIENCY	40%	TILTING MOMENT	203.4kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	675kN
BACKLASH CLEARANCE	<0.17°	AXIAL STATIC LOAD	1.808kN
MAXIMUM TORQUE	30.000Nm	RADIAL DYNAMIC LOAD	251 kN
NOMINAL TORQUE	25.000Nm	AXIAL DYNAMIC LOAD	293kN

NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1RPM.
STANDARD PAINT: FOR CORROSION CATEGORY C3-M - COLOR RAL 9005

LIMITING LOAD DIAGRAM



>1200	±1.2
>400.0 ~ 1200	+0.8
>120.0 ~ 400.0	+0.5
>30.0 ~ 120.0	+0.3
>8.0 ~ 30.0	+0.2
>3.0 ~ 8.0	+0.1
>0.3 ~ 3.0	+0.1
Range of sizes	Unstated



Reference
BE600-Z1

Denomination	Sales Drawing	Rev	D
MATERIAL: -	WEIGHT [kg]: 109.55	NUM. PIECES: 1	
SCALE: 1:5	SIZE: A3	SHEET: 1 of 1	

SHAFT: Ø25MM KEYS SHAFT
FLANGE: SAE - 2BOLT FLANGE

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METRIC



MAIN PERFORMANCE PARAMETERS

NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1 RPM.



SHAFT: Ø 25MM KEYED SHAFT
FLANGE: SAE - 2BOLT FLANGE

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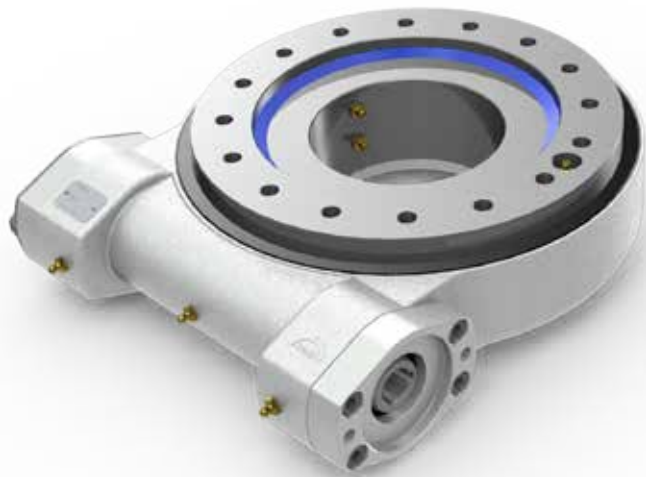


TGB GROUP
 INFO@TGBGROUP.EU
 WWW.TGBGROUP.EU

Reference	Location
BE700-Z1	

Denomination		Sales Drawing	
MATERIAL:	-	WEIGHT [kg]:	173.33
SCALE:	1:5	SIZE:	A3
		NUM. PIECES:	1
		SHEET:	1 of 1

LBE SERIES



DESCRIPTION

The LBE series are low weight drives that have the same geometry and dimensions as the BE drives but with a housing of aluminum. This modification reduces considerably the slew drive weight which allows to use it in special applications where weight is critical.

This kind of slew drive includes an external lip seal that provides a higher protection against dust and water.

MAIN FEATURES

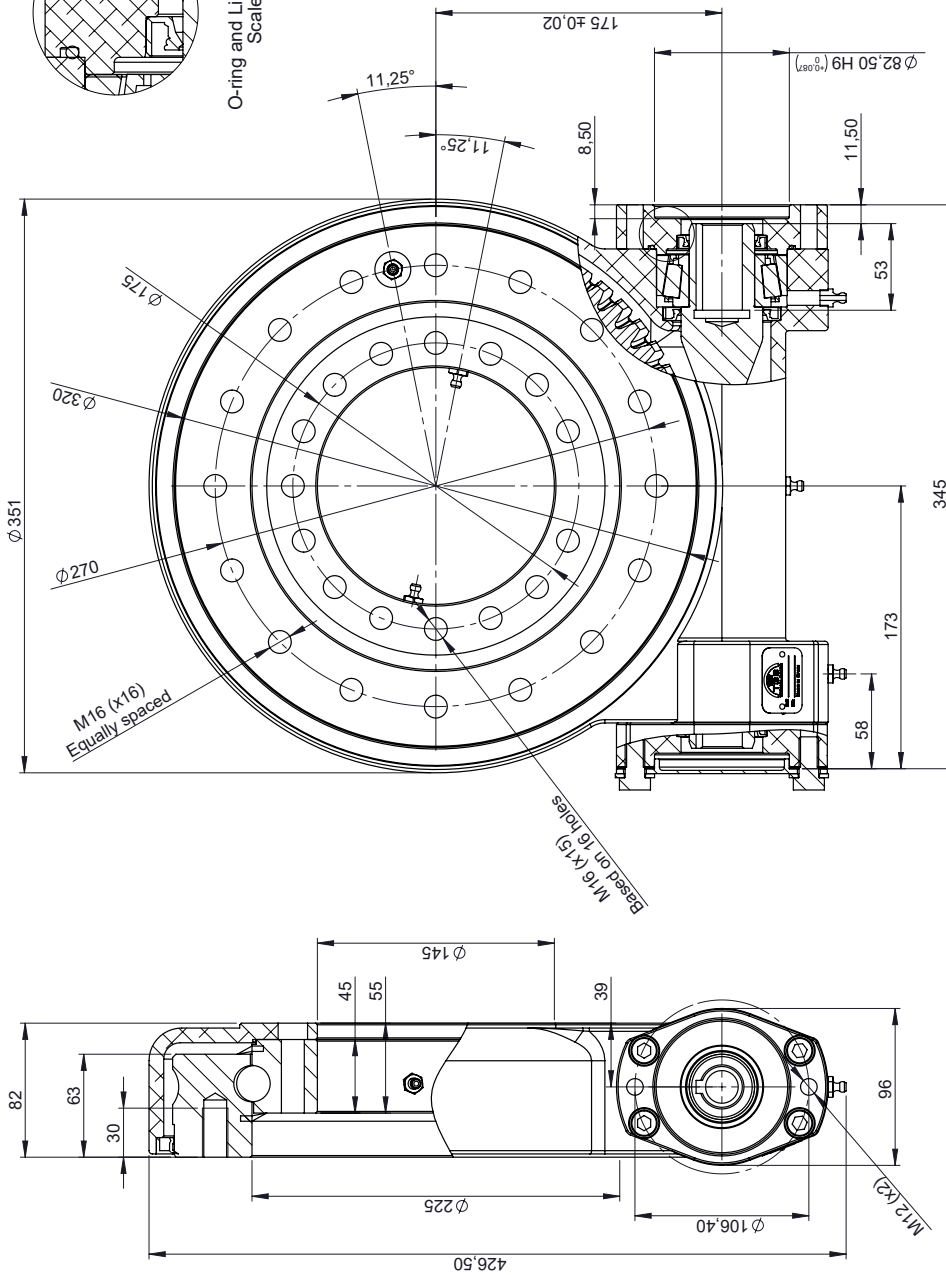
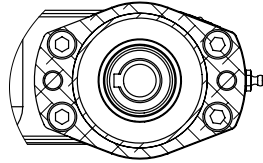
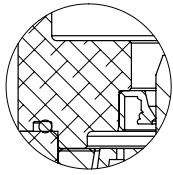
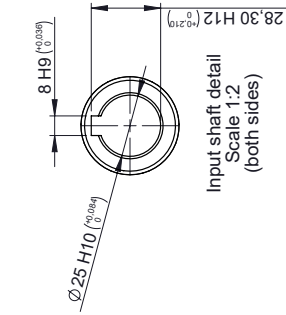
- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Aluminum Housing
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Robotics, Aerial platforms, etc.

LBE SERIES

METRIC



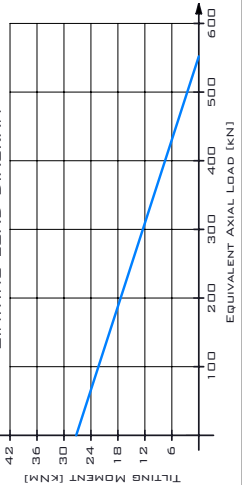
MINIMUM INPUT TORQUE: 25NM

MAIN PERFORMANCE PARAMETERS

GEAR RATIO	6:1:1	HOLDING TORQUE	28 KNM
EFFICIENCY	40%	TILTING MOMENT	27.5KNM
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	204KN
BACKLASH CLEARANCE	<0.17°	AXIAL STATIC LOAD	547KN
MAXIMUM TORQUE	9.100NM	RADIAL DYNAMIC LOAD	132KN
NOMINAL TORQUE	4.480NM	AXIAL DYNAMIC LOAD	154KN

NOTES: ALL BLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED: 1 RPM.
STANDARD PAINT: FOR CORROSION CATEGORY C3-M - COLOR RAL 9005

LIMITING LOAD DIAGRAM



SHAFT: Ø25MM KEYED SHAFT
FLANGE: SAE - 2BOLT FLANGE

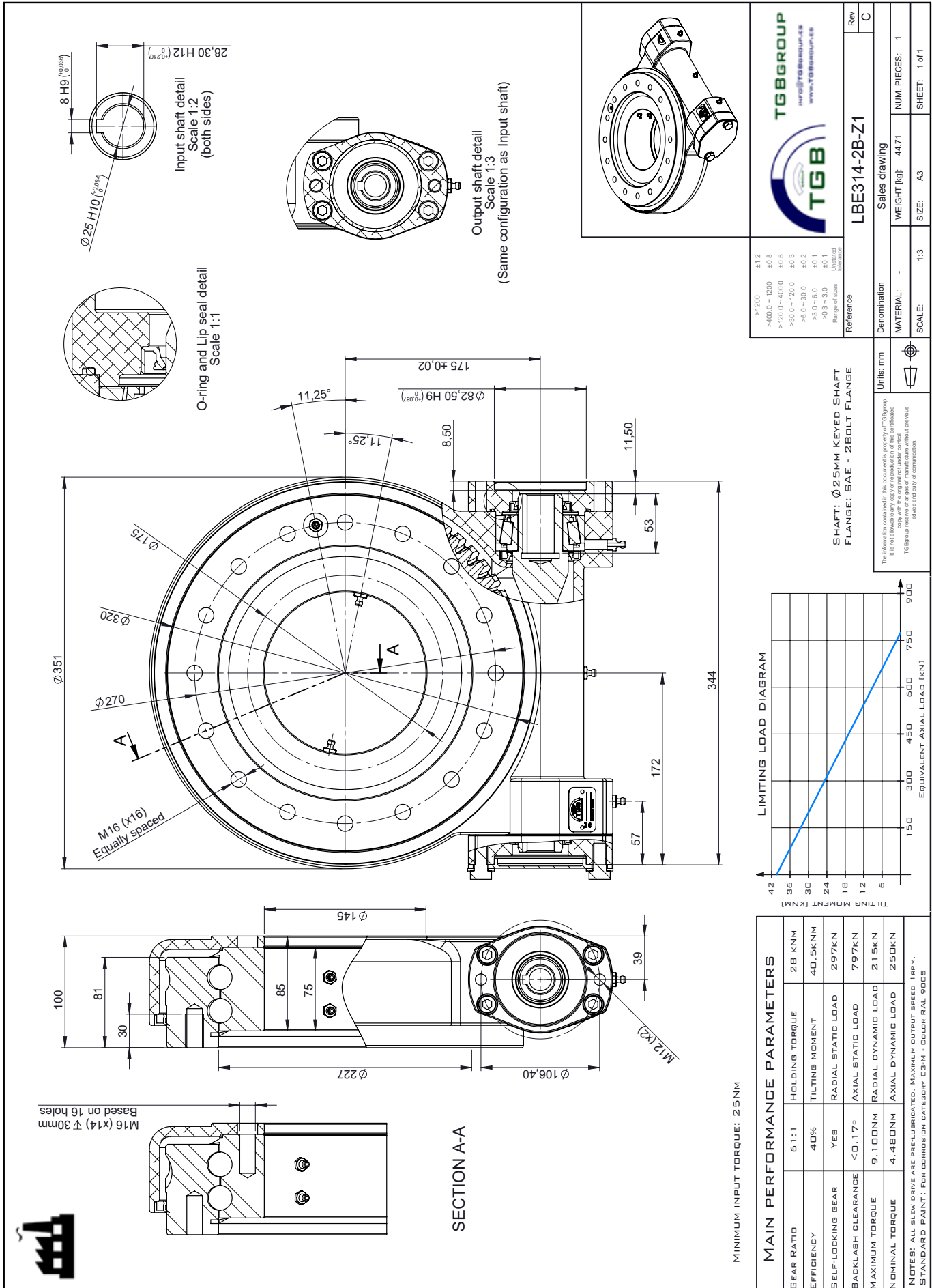
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Reference	D
Denomination	LBE314-Z1
Sales drawing	
MATERIAL:	
WEIGHT [kg]:	34.82
NUM. PIECES:	1
SCALE:	1:3
SIZE:	A3
SHEET:	1 of 1

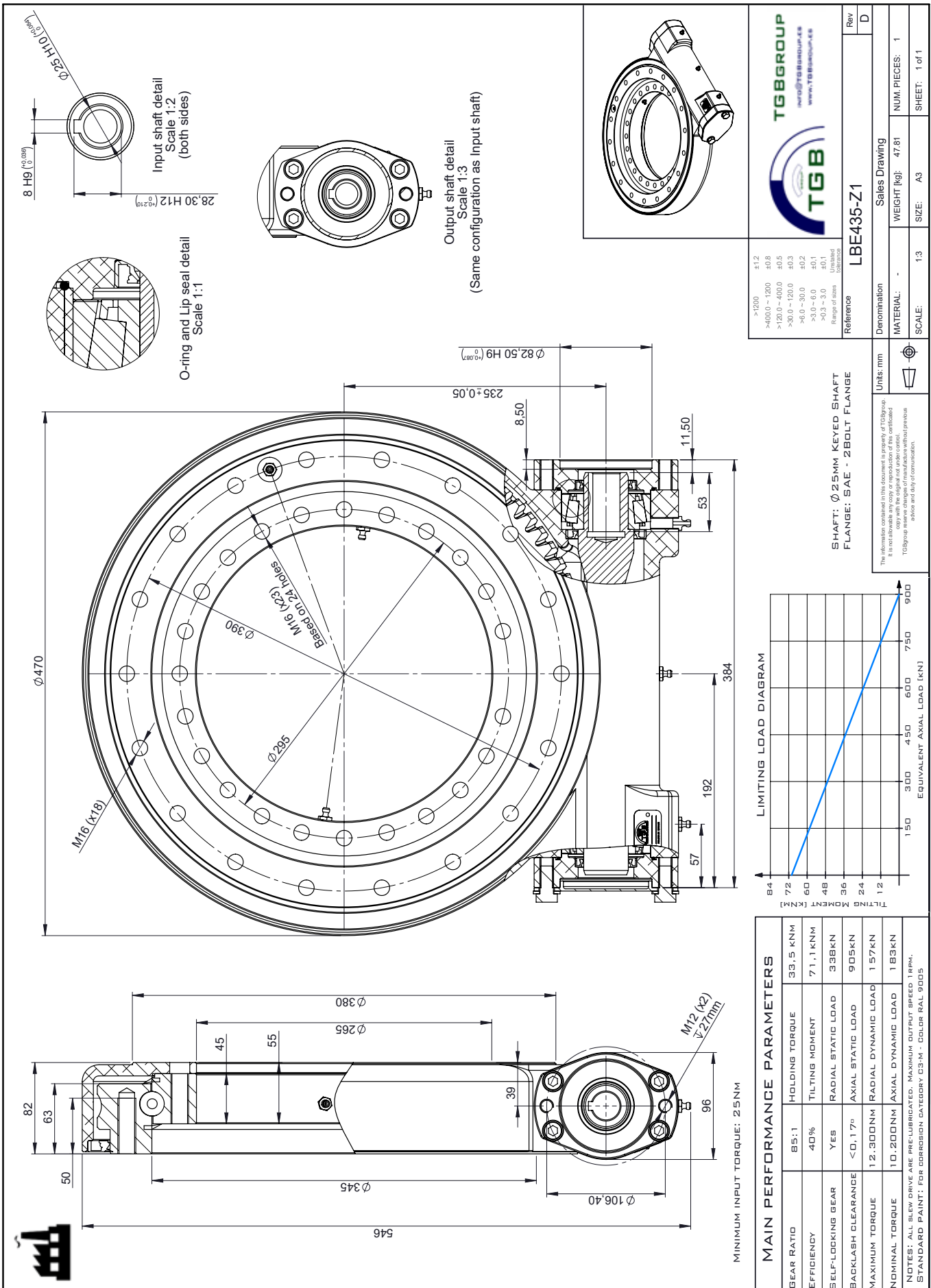
LBE SERIES

METRIC



LBE SERIES

METRIC



TGO SERIES



DESCRIPTION

The TGO series are the open version for the TGE series, so the inner components are exactly the same, while the housing does not cover the slewing ring like on the previous series.

MAIN FEATURES

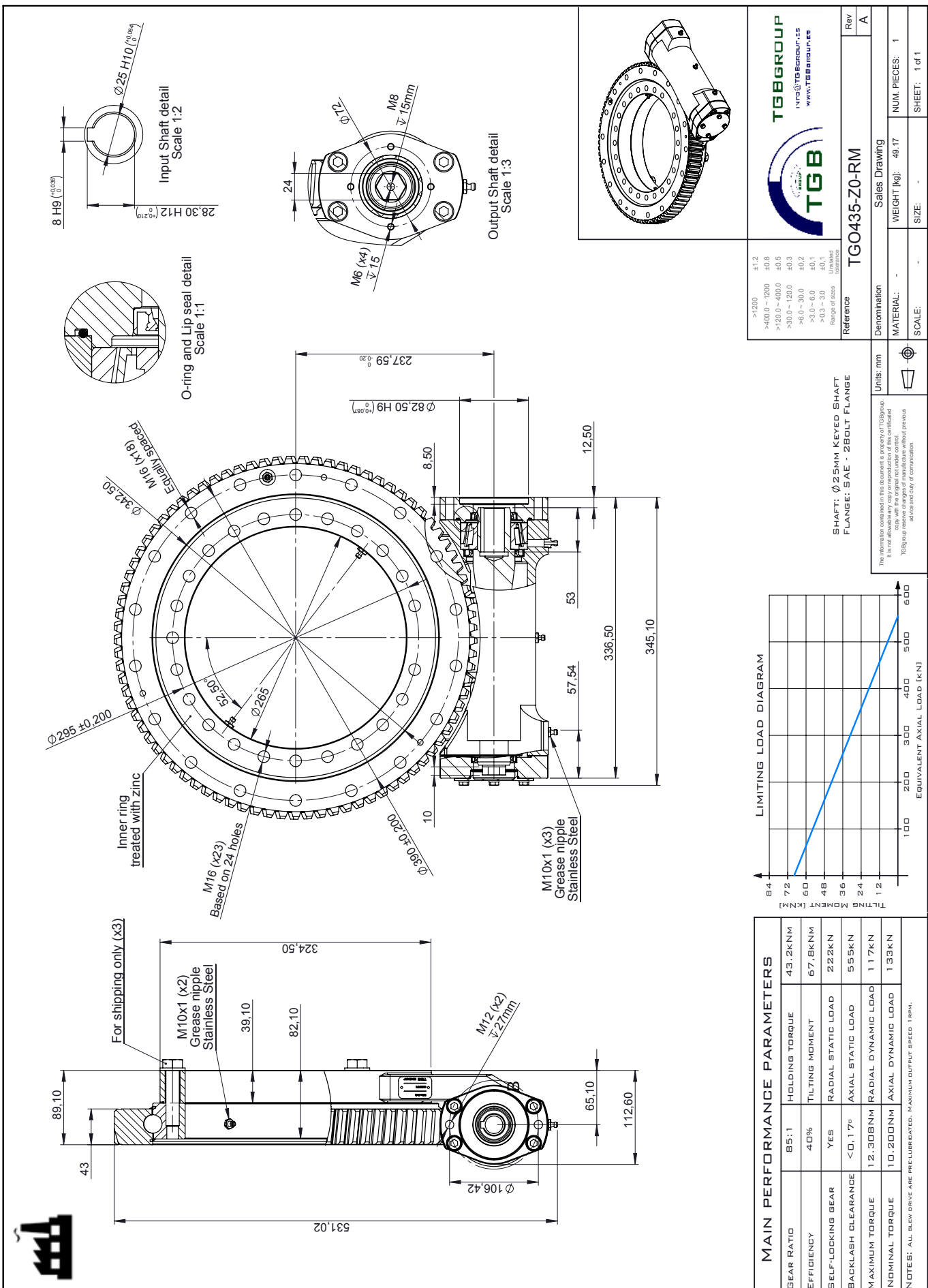
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Vacuum trucks, cranes, etc.

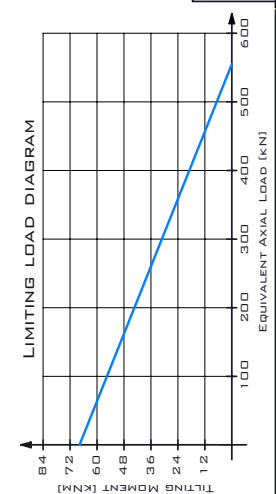
TGO SERIES

METRIC

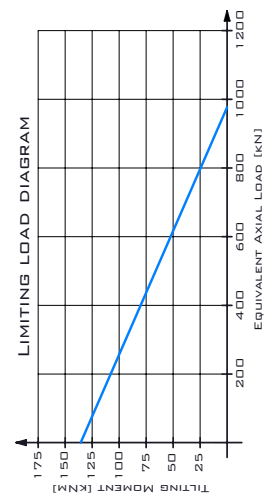


TGB GROUP info@tgbgroup.es www.tgbgroup.es		Rev	A
TGO435-Z0-RM Sales Drawing		NUM. PIECES:	1
WEIGHT [kg]: 49.17		SIZE:	-
SCALE: -		SHEET:	1 of 1

Reference Denomination MATERIAL: SCALE:	Units: mm SHAFT: $\varnothing 25mm$ KEYS SHAFT FLANGE: SAE - 2BOLT FLANGE
--	---

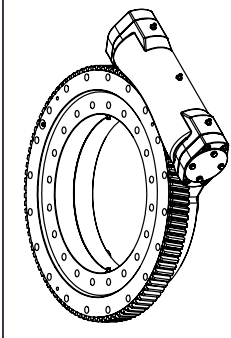


GEAR RATIO	85:1	HOLDING TORQUE	43.2kNm
EFFICIENCY	40%	TILTING MOMENT	67.8kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	222kN
BACKLASH CLEARANCE	<0.17%	AXIAL STATIC LOAD	555kN
MAXIMUM TORQUE	12.308Nm	RADIAL DYNAMIC LOAD	117kN
NOMINAL TORQUE	10.200Nm	AXIAL DYNAMIC LOAD	133kN



MAIN PERFORMANCE PARAMETERS			
GEAR RATIO	102:1	HOLDING TORQUE	65,1 kNm
EFFICIENCY	40%	TILTING MOMENT	135,6 kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	391 kN
BACKLASH CLEARANCE	<0,15°	AXIAL STATIC LOAD	977 kN
MAXIMUM TORQUE	18.034 Nm	RADIAL DYNAMIC LOAD	205 kN
NOMINAL TORQUE	15.096 Nm	AXIAL DYNAMIC LOAD	235 kN

NOTES: * ALL BLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1 RPM.

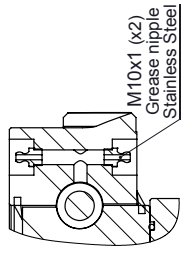
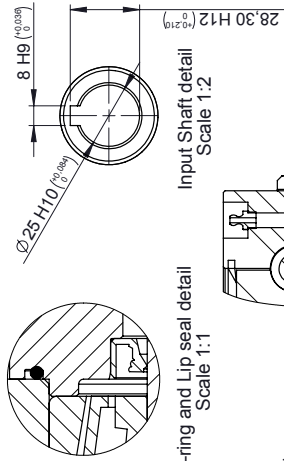
[illegible]

SHAFT: Ø25MM KEYS SHAFT
FLANGE: SAE - 2BOLT FLANGE

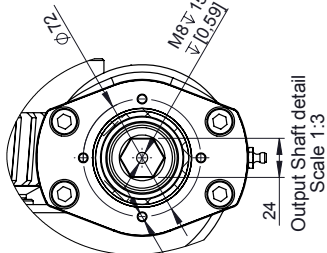
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TGO SERIES

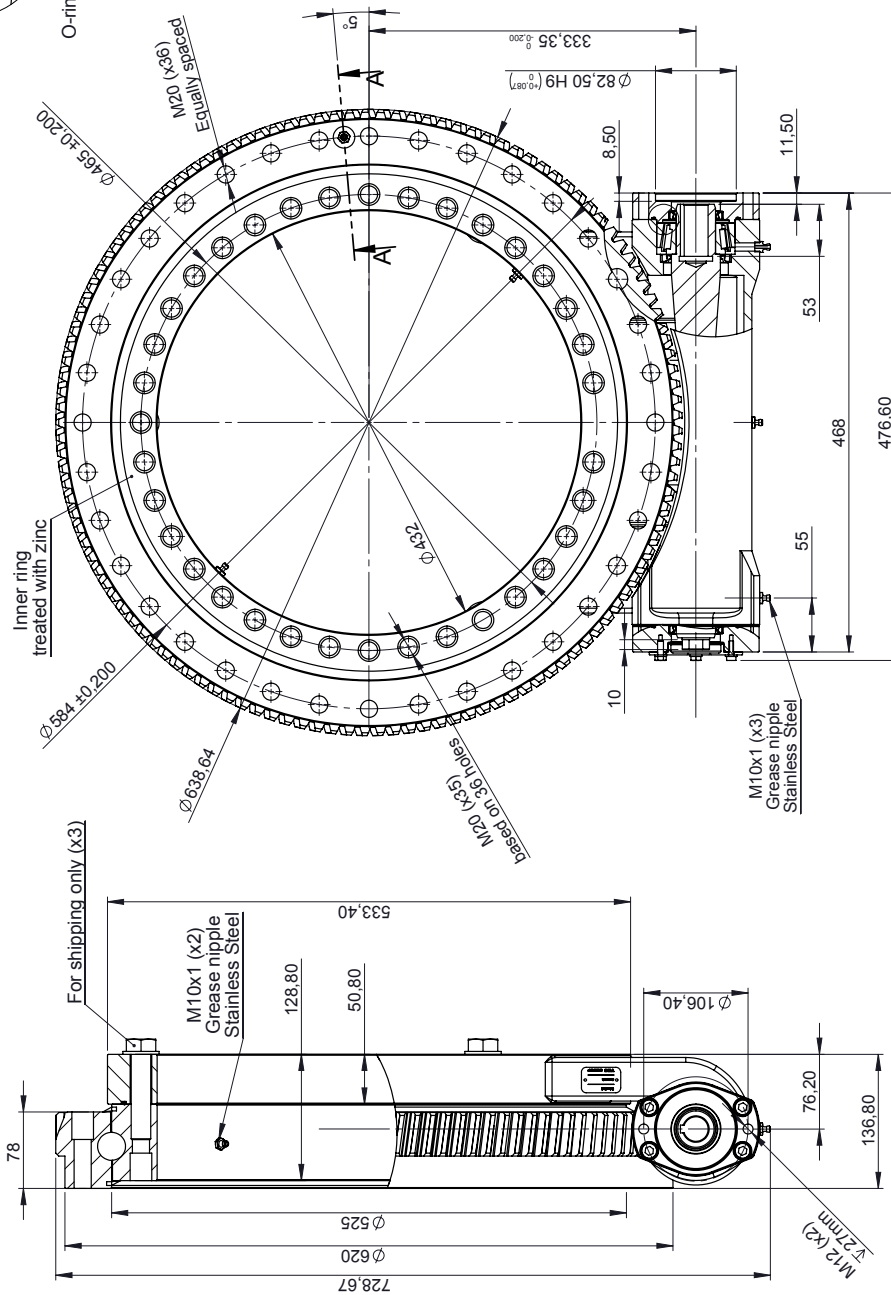
METRIC



M10x1 (x2)
Grease nipple
Stainless Steel



M8 V15
V10.591



TGBGROUP
1930 TGBgroup ES
www.tgbgroup.es

TGB

Reference: TGO639-Z0-RM

Denomination: Sales Drawing

MATERIAL: -

SCALE: -

Units: mm

SHAFT: Ø25MM KEYS SHAFT

FLANGE: SAE - 2BOLT FLANGE

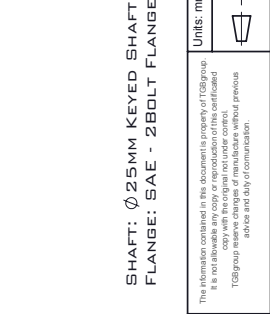
Units: mm

SHAFT: Ø25MM KEYS SHAFT

FLANGE: SAE - 2BOLT FLANGE

NUM. PIECES: 1

SHEET: 1 of 1



MAIN PERFORMANCE PARAMETERS			
GEAR RATIO	1.25:1	HOLDING TORQUE	95.2kNm
EFFICIENCY	40%	TILTING MOMENT	203.4kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	640kN
BACKLASH CLEARANCE	<0.15°	AXIAL STATIC LOAD	1.598kN
MAXIMUM TORQUE	30.500Nm	RADIAL DYNAMIC LOAD	336kN
NOMINAL TORQUE	23.500Nm	AXIAL DYNAMIC LOAD	384kN
NOTES: ALL BLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1 RPM.			

2-WORM SERIES



DESCRIPTION

The double worm series are slew drives designed to withstand higher torques than the previous series as they are driven by two screw worms at the same time, which makes the slew drive to resist nearly the double of tooth force.

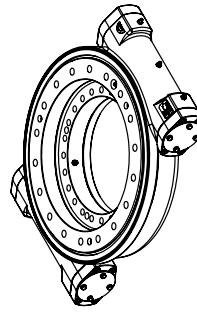
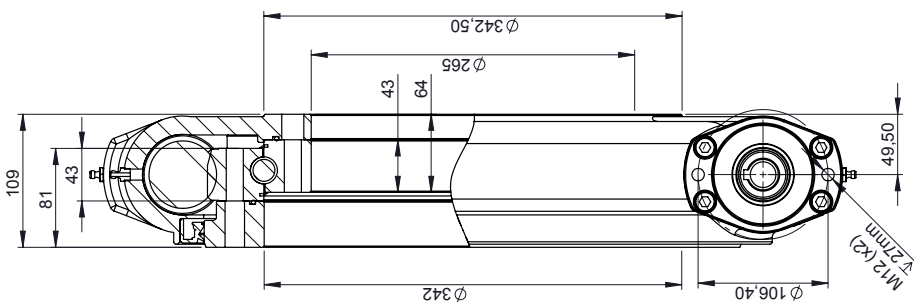
This kind of slew drive includes an external lip seal that provides a higher protection against dust and water.

MAIN FEATURES

- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Cranes, Forklifts, etc.



Equivalent Axial Load (kN)	Tilting Moment (kNm)
0	60
100	64
200	68
300	72
400	76
500	80
600	84

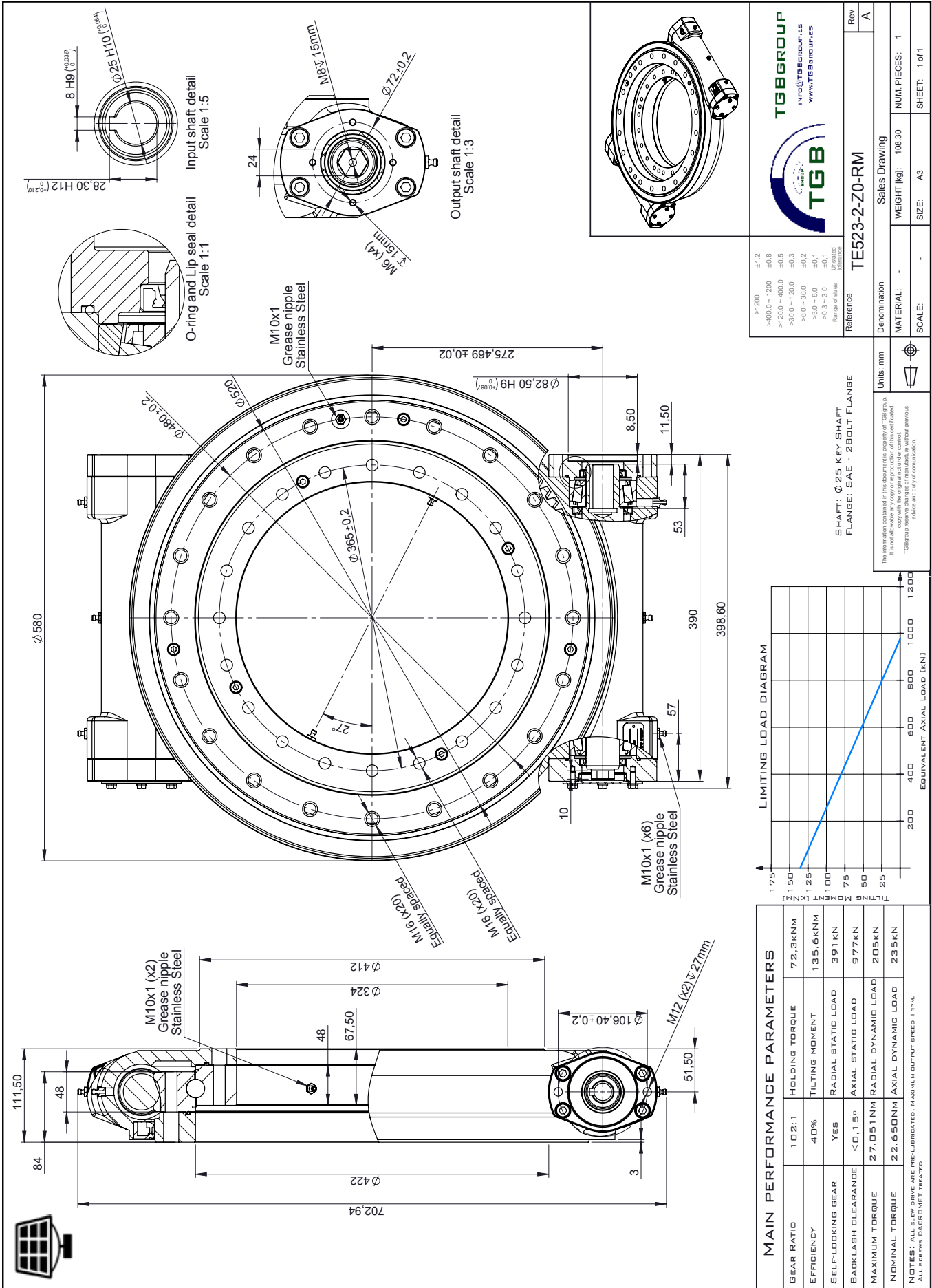
>1200	±1.2
>400.0 ~ 1200	±0.8
>120.0 ~ 400.0	±0.5
>30.0 ~ 120.0	±0.3
>6.0 ~ 30.0	±0.2
>3.0 ~ 6.0	±0.1
>0.3 ~ 3.0	±0.1
Range of sizes	Unstated tolerance

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Reference	TE435-2-Z0-RM		Rev	B
Denomination		Sales Drawing		
MATERIAL:	1:4	WEIGHT Kg:	84.39	NUM. PIECES: 1
SCALE:		SIZE:	A3	SHEET: 1 of 1

DOUBLE WORM SERIES

METRIC



TGB GROUP
11500 TGB GROUP AS
WWW.TGBGROUP.COM



Rev	A
Denomination	Sales Drawing
WEIGHT [kg]	108.30
NUM. PIECES:	1
SCALE:	A3
SHEET:	1 of 1

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METRIC



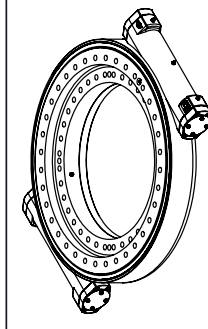
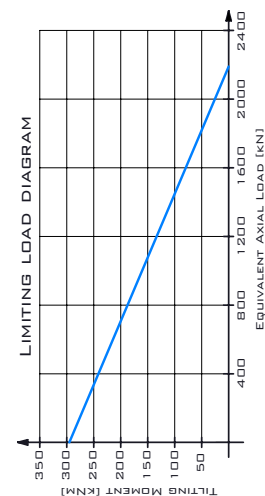
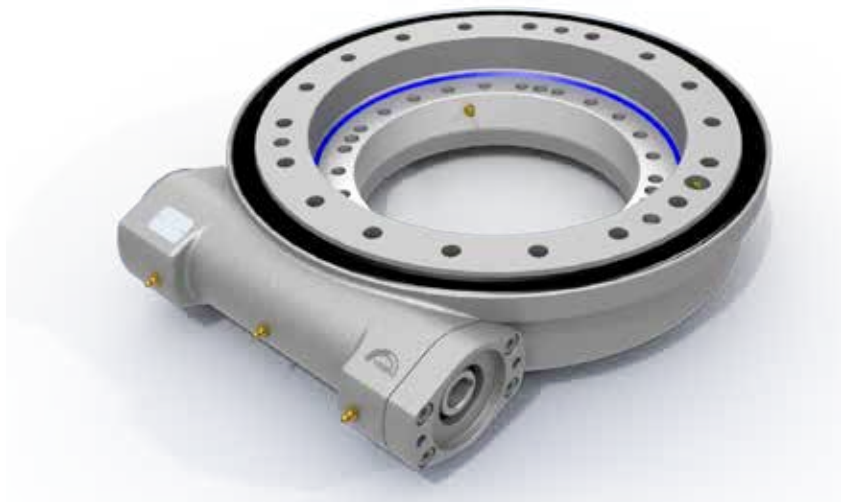


Figure 10.10 is a graph titled "LIMITING LOAD DIAGRAM". The vertical axis (Y-axis) is labeled "TILTING MOMENT [kNm]" and ranges from 0 to 350 in increments of 50. The horizontal axis (X-axis) is labeled "EQUIVALENT AXIAL LOAD [kN]" and ranges from 0 to 2400 in increments of 400. A blue line represents the limiting load, starting at a tilting moment of 300 kNm when the axial load is 0 kN, and decreasing linearly to 0 kNm when the axial load is 2400 kN.



SAE - 2BOLT FLANGE SHAF: 25MM KEYS SHAF		Units: mm		Reference TE760-2-Z0-RM Rev A	
Range of sizes Unlimited tolerances		Denomination Sales Drawing		NUM. PIECES: 1	
>1200 ±1.2 >4000 - 1200 ±0.8 >1200 - 4000 ±0.5 >300 - 1200 ±0.3 >60 - 300 ±0.2 >3.0 - 60 ±0.1 >0.3 - 3.0 ±0.1		MATERIAL: - WEIGHT [kg]: 209.89		SHEET: 1 of 1	
Range of sizes Unlimited tolerances		SCALE: - SIZE: -		NUM. PIECES: 1	

TE SERIES



DESCRIPTION

The TE series are slew drives which consist on a globoid screw worm and a helical slewing ring which provide a high contact ratio between the screw worm teeth and the slewing ring teeth (between 3 to 4 teeth are always in contact). This fact allows this serie of slew drive to withstand high holding torques, which are quite critical for solar trackers applications where the slew drive must resist high loads due to wind gusts.

This kind of slew drive includes an external lip seal that provides a higher protection against dust and water.

MAIN FEATURES

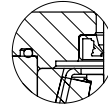
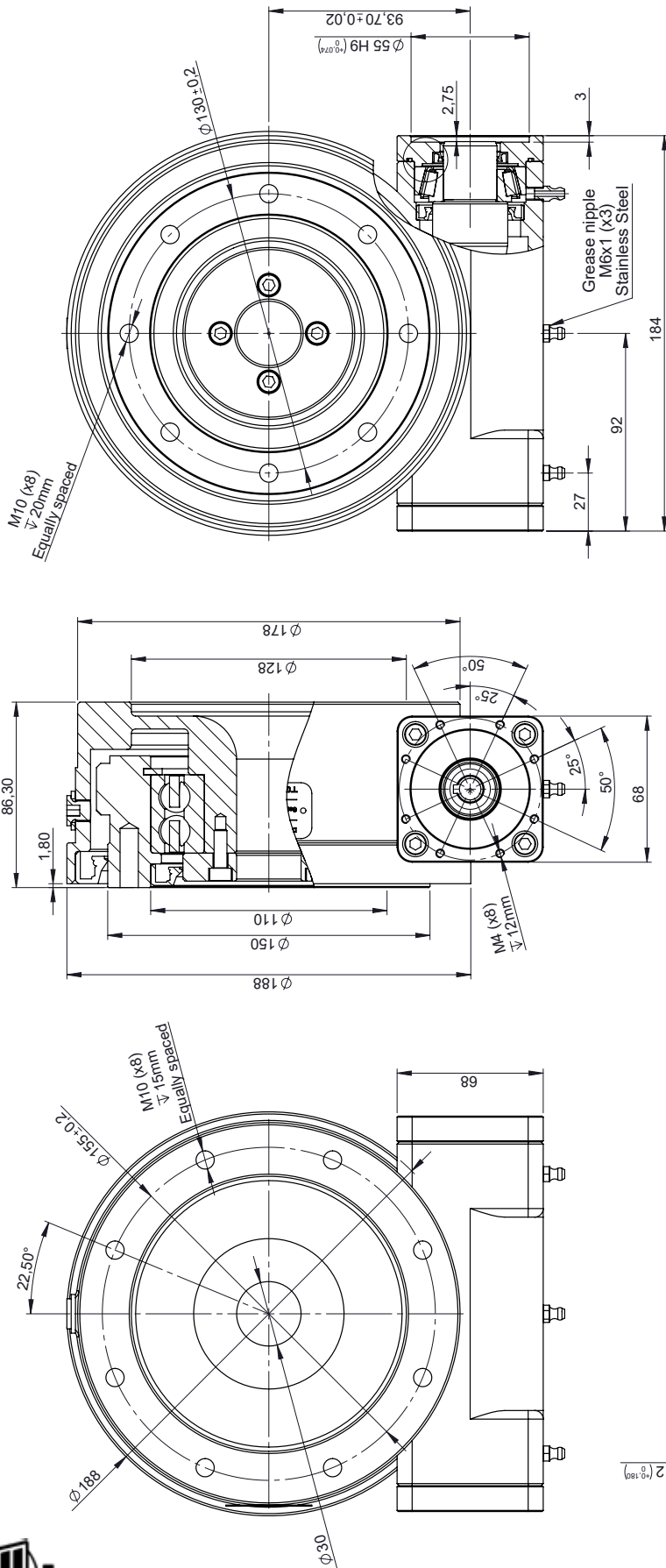
- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

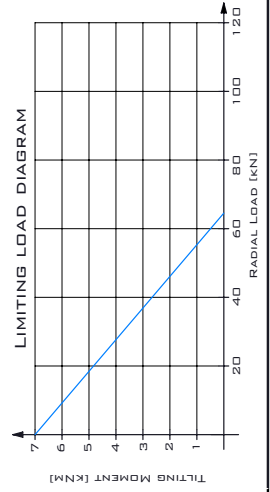
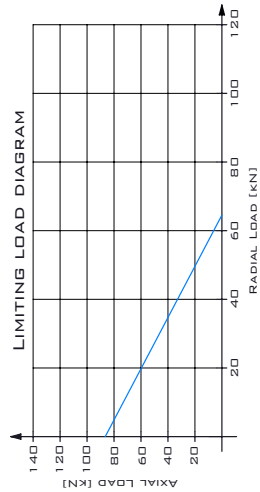
- Solar trackers

TE SERIES

METRIC



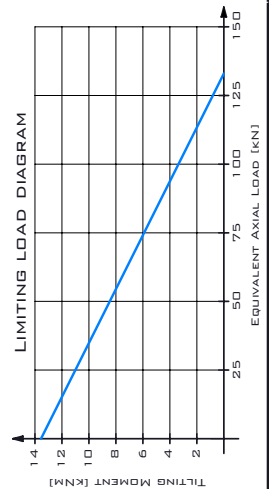
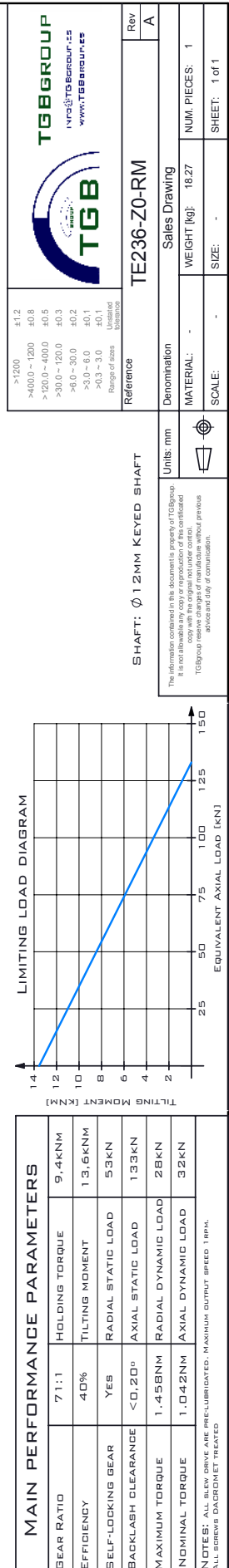
O-ring and Lip seal detail
Scale 1:1



MAIN PERFORMANCE PARAMETERS					
GEAR RATIO	6.2:1	HOLDING TORQUE	5kNm		
EFFICIENCY	30%	TILTING MOMENT	7.1 kNm		
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	64kN		
BACKLASH CLEARANCE	<0.26°	AXIAL STATIC LOAD	84kN		
MAXIMUM TORQUE	1.200Nm	RADIAL DYNAMIC LOAD	75kN		
NOMINAL TORQUE	600Nm	AXIAL DYNAMIC LOAD	98kN		
NOTES: ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800 RPM. ALL SCREWS DACROMET TREATED					

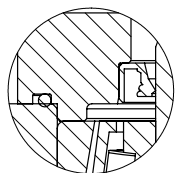
 TGB GROUP info@tgbgroup.co.uk www.tgbgroup.co.uk		Rev	B
		Reference	TE160-Z1-RM
Denomination Sales Drawing		Units: mm	
MATERIAL: -		WEIGHT [kg]:	14.00
SCALE: -		NUM. PIECES: 1	
		SHEET: 1 of 1	

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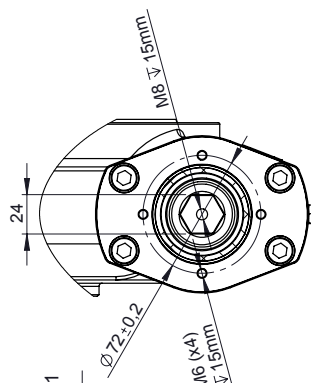


MAIN PERFORMANCE PARAMETERS		
GEAR RATIO	7:1:1	HOLDING TORQUE 9.4KNM
EFFICIENCY	40%	TILTING MOMENT 13.6KNM
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD 53KN
BACKLASH CLEARANCE	<0.20°	AXIAL STATIC LOAD 133kN
MAXIMUM TORQUE	1.458NM	RADIAL DYNAMIC LOAD 28KN
NOMINAL TORQUE	1.042NM	AXIAL DYNAMIC LOAD 32KN

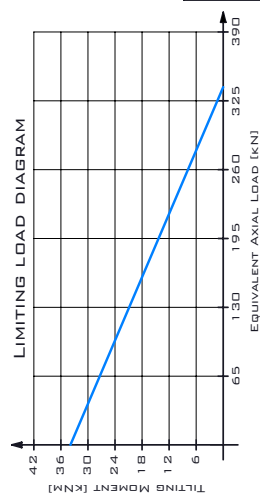
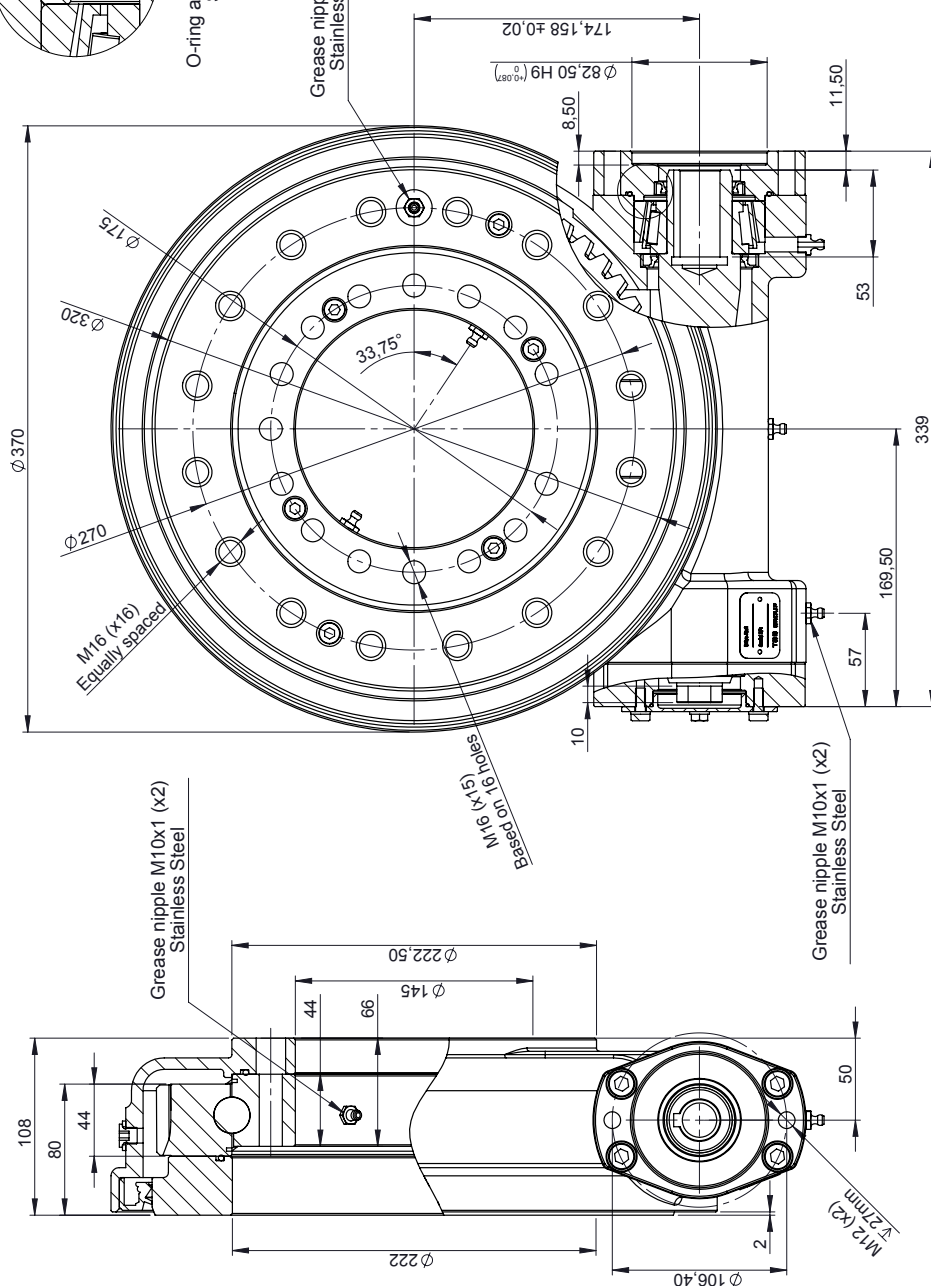
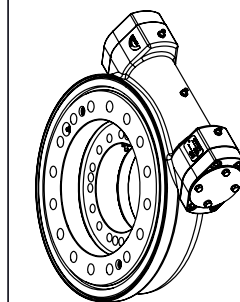
NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 18MPH.
SLEW DRIVES OIL-IMMERSED



O-ring and Lip seal detail
Scale 1:1



Output shaft detail
Scale 1:3



MAIN PERFORMANCE PARAMETERS			
BEAR RATIO	61:1	HOLDING TORQUE	35KNM
EFFICIENCY	40%	TILTING MOMENT	33.9KNM
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	135KN
BACKLASH CLEARANCE	<0.1°	AXIAL STATIC LOAD	338kN
MAXIMUM TORQUE	8.835NM	RADIAL DYNAMIC LOAD	71 kN
NOMINAL TORQUE	7.320NM	AXIAL DYNAMIC LOAD	81 kN

NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUPUT SPEED 18PMH.
 ALL SLEWS DICHROMET TREATED

		TGBGROUP INSTRUMENTS www.TGBinstruments																	
<table><tr><td>>1200</td><td>+12</td></tr><tr><td>>400.0 - 1200</td><td>+0.8</td></tr><tr><td>>120 - 400.0</td><td>+0.5</td></tr><tr><td>>30.0 - 120.0</td><td>+0.3</td></tr><tr><td>>6.0 - 30.0</td><td>+0.2</td></tr><tr><td>>3.0 - 6.0</td><td>+0.1</td></tr><tr><td>>0.3 - 3.0</td><td>+0.1</td></tr><tr><td colspan="2">Unlimited clearance</td></tr></table>		>1200	+12	>400.0 - 1200	+0.8	>120 - 400.0	+0.5	>30.0 - 120.0	+0.3	>6.0 - 30.0	+0.2	>3.0 - 6.0	+0.1	>0.3 - 3.0	+0.1	Unlimited clearance		TE314-Z0-RM	
>1200	+12																		
>400.0 - 1200	+0.8																		
>120 - 400.0	+0.5																		
>30.0 - 120.0	+0.3																		
>6.0 - 30.0	+0.2																		
>3.0 - 6.0	+0.1																		
>0.3 - 3.0	+0.1																		
Unlimited clearance																			
Reference		Rev A																	
Denomination		Sales drawing																	
MATERIAL: -		WEIGHT [kg]: 48.65	NUM. PIECES: 1																
SCALE:		SIZE: -	SHEET: 1 of 1																

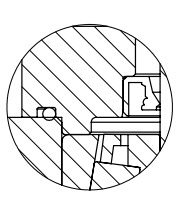
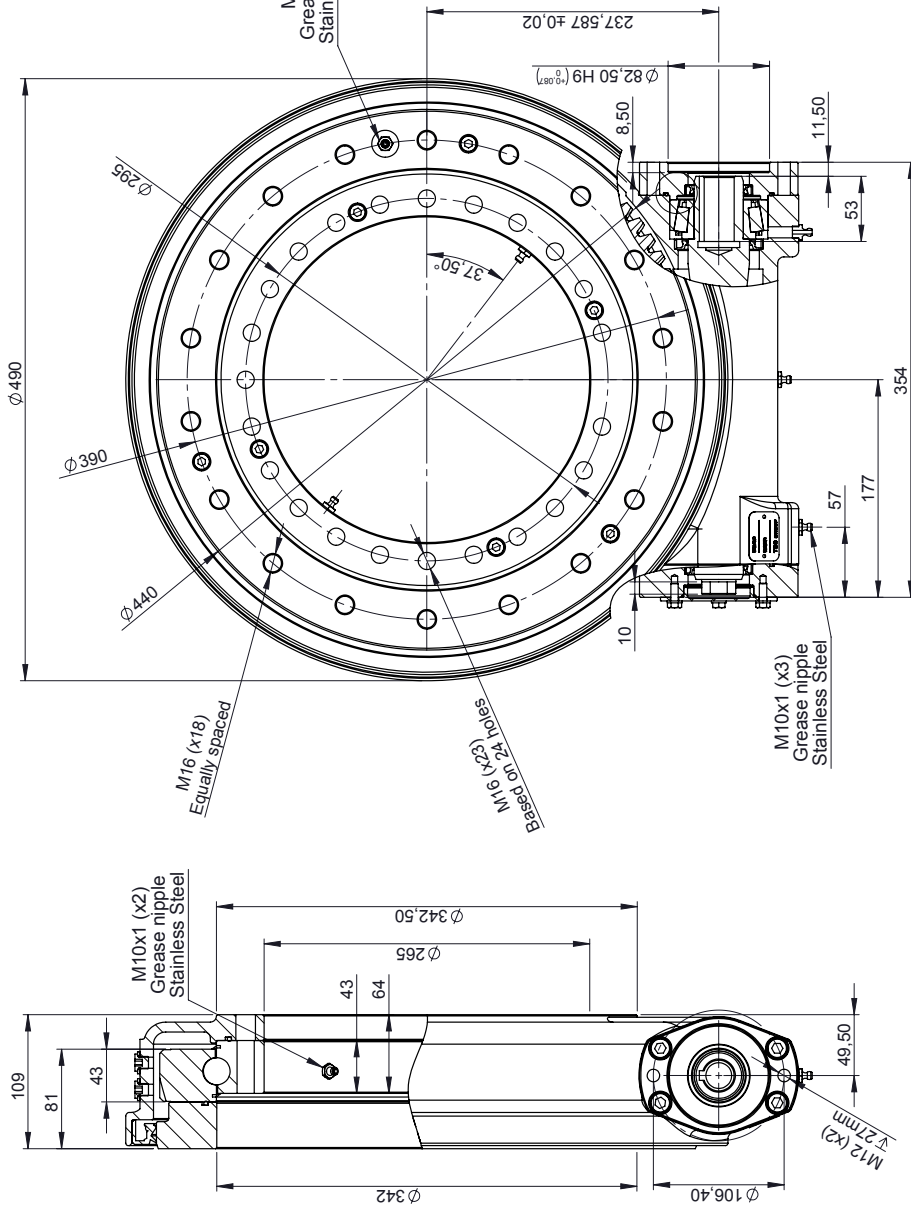
SHAF-T: Ø25MM KE-YED SHAFT FLAN-GE: SAE - 2BOLT FLANGE	Units: mm	
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SHAFT: Ø25MM KEYS SHAFT
FLANGE: SAE - 2BOLT FLANGE

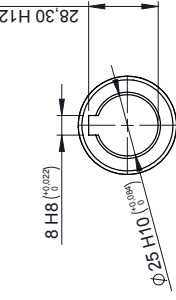
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TE SERIES

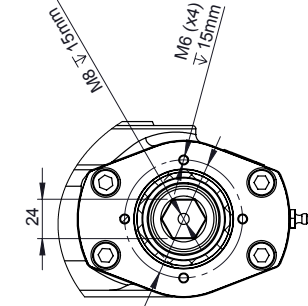
METRIC



O-ring and Lip seal detail
Scale 1:1



Input shaft detail
Scale 1:2



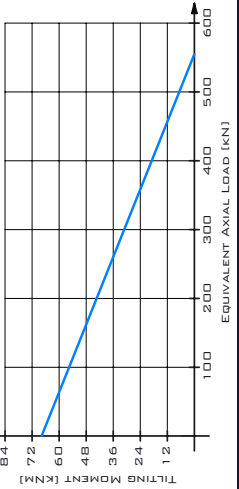
Output shaft detail
Scale 1:3

MAIN PERFORMANCE PARAMETERS

GEAR RATIO	85:1	HOLDING TORQUE	43.2kNm
EFFICIENCY	40%	TILTING MOMENT	67.8kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	222kN
BACKLASH CLEARANCE	<0.17°	AXIAL STATIC LOAD	555kN
NOMINAL TORQUE	12.308Nm	RADIAL DYNAMIC LOAD	117kN
NOMINAL TORQUE	10.200Nm	AXIAL DYNAMIC LOAD	133kN

NOTES: ALL BEARING DRIVES ARE LUBRICATED. MAXIMUM OUTPUT SPEED 1000 RPM.
ALL SLEWS DASHOMET TREATED

LIMITING LOAD DIAGRAM



SHAFT: Ø25MM KEYS
FLANGE: SAE - 2BOLT FLANGE

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Units: mm



Reference: TE435-Z0-RM

Rev: A

Sales Drawing

WEIGHT [kg]: 70.34

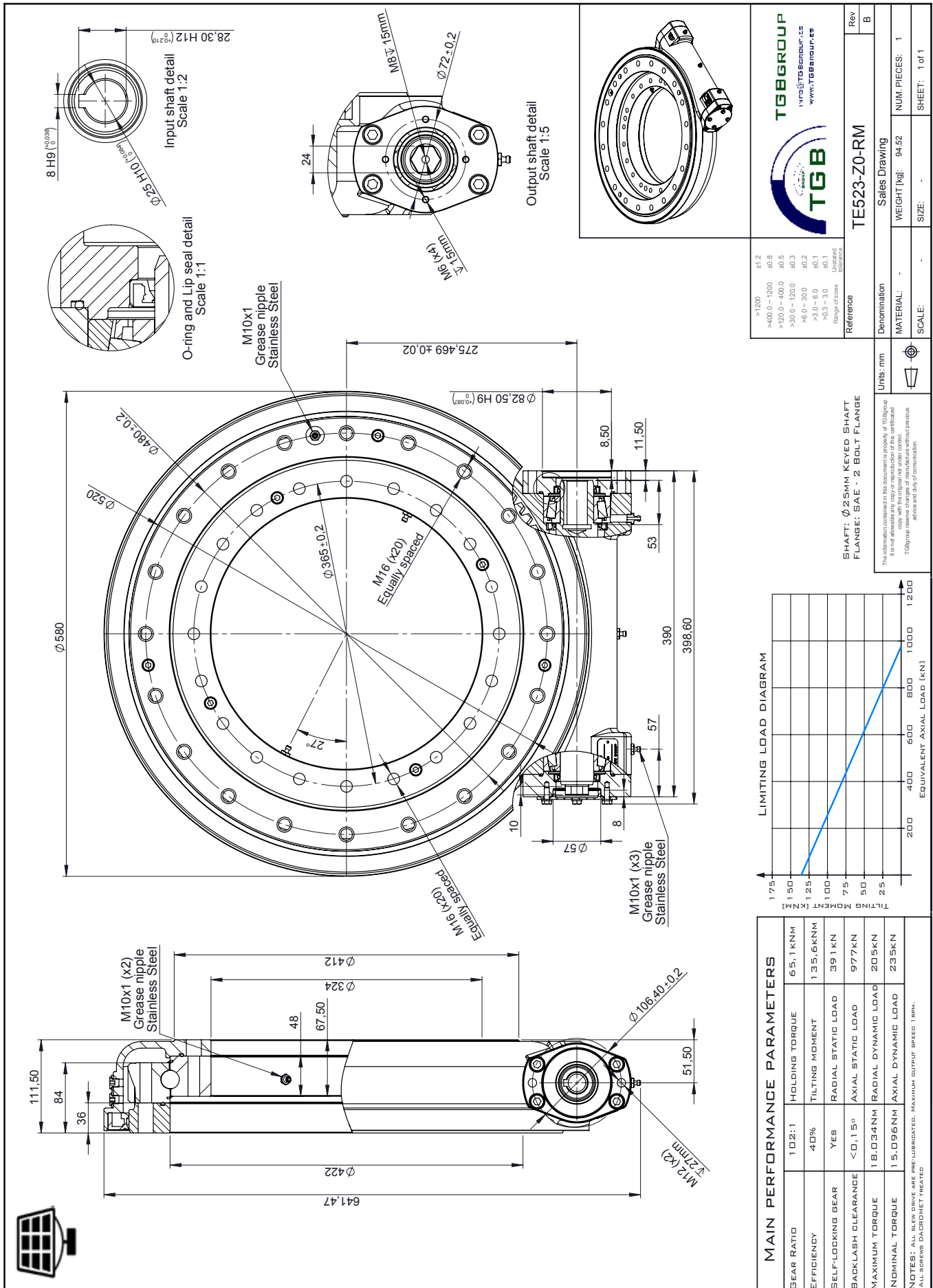
NUM. PIECES: 1

SHEET: 1 of 1

SCALE: -

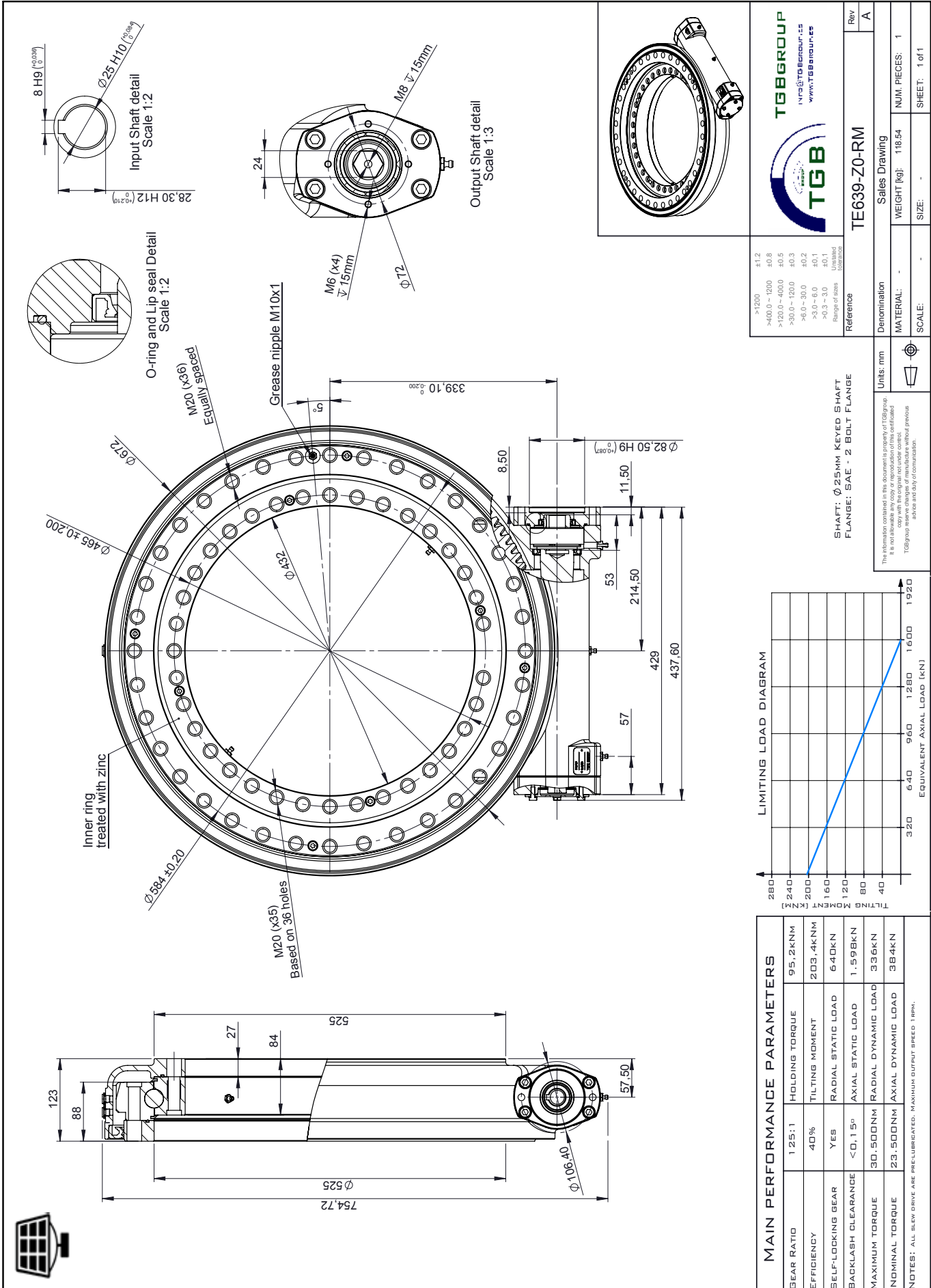
TE SERIES

METRIC



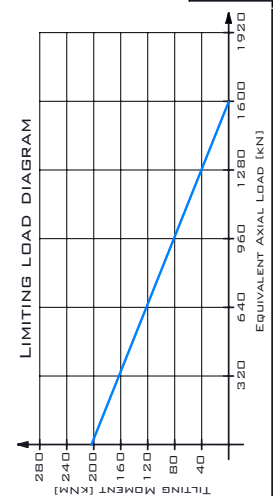
TE SERIES

METRIC

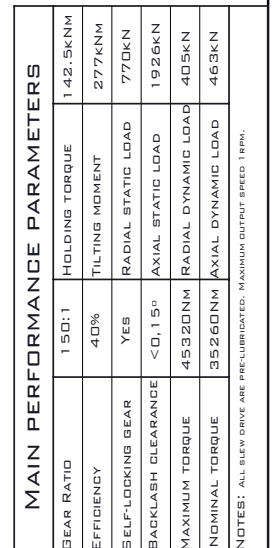
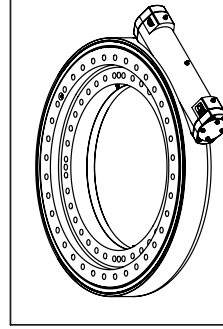


TGB GROUP info@tgbgroup.es www.tgbgroup.es	
TGB	
TE639-Z0-RM	Rev A
Sales Drawing	NUM. PIECES: 1
WEIGHT [kg]: 118.54	SIZE: -
MATERIAL: -	SHEET: 1 of 1
SCALE: -	

Reference	Denomination
Units: mm	Material: -
SHAF: Ø 25MM KEYS SHAFT FLANGE: SAE - 2 BOLT FLANGE	Scale: -



GEAR RATIO	125:1	HOLDING TORQUE	95.2kNm
EFFICIENCY	40%	TILTING MOMENT	203.4kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	640kN
BACKLASH CLEARANCE	<0.15°	AXIAL STATIC LOAD	1.598kN
MAXIMUM TORQUE	30.500Nm	RADIAL DYNAMIC LOAD	336kN
NOMINAL TORQUE	23.500Nm	AXIAL DYNAMIC LOAD	384kN



SHAFT: 25MM KEYED SHAFT FLANGE: SAE - 2BOLT FLANGE	Unit: mm	
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	>1200	±12
	>400.0 ~ 1200	±0.8
	>120.0 ~ 400.0	±0.5
	>30.0 ~ 120.0	±0.3
	>6.0 ~ 30.0	±0.2
	>3.0 ~ 6.0	±0.1
	>0.3 ~ 3.0	±0.1
	Range of sizes	Unlimited Unrestricted
Reference	TE760-Z0-RM	
Denomination	Sales Drawing	
	MATERIAL: -	WEIGHT [kg]: 192/73
	SCALE:	SIZE: -
		NUM. PIECES: 1
		SHEET: 1 of 1

TGE SERIES



DESCRIPTION

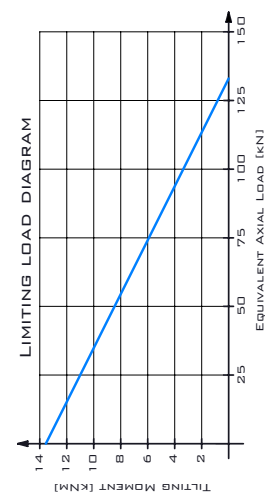
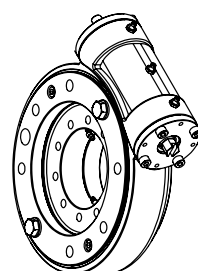
The TGE series are the most standard and low cost slew drives as they only have a standard seal to protect the inner parts of the slew drive. The inner parts of this slew drive are a helical slewing ring combined with a globoid screw worm which can withstand high loads due to the amount of teeth in contact between both parts. This serie is adequate for standard applications where no special requirements due to environment are needed.

MAIN FEATURES

- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

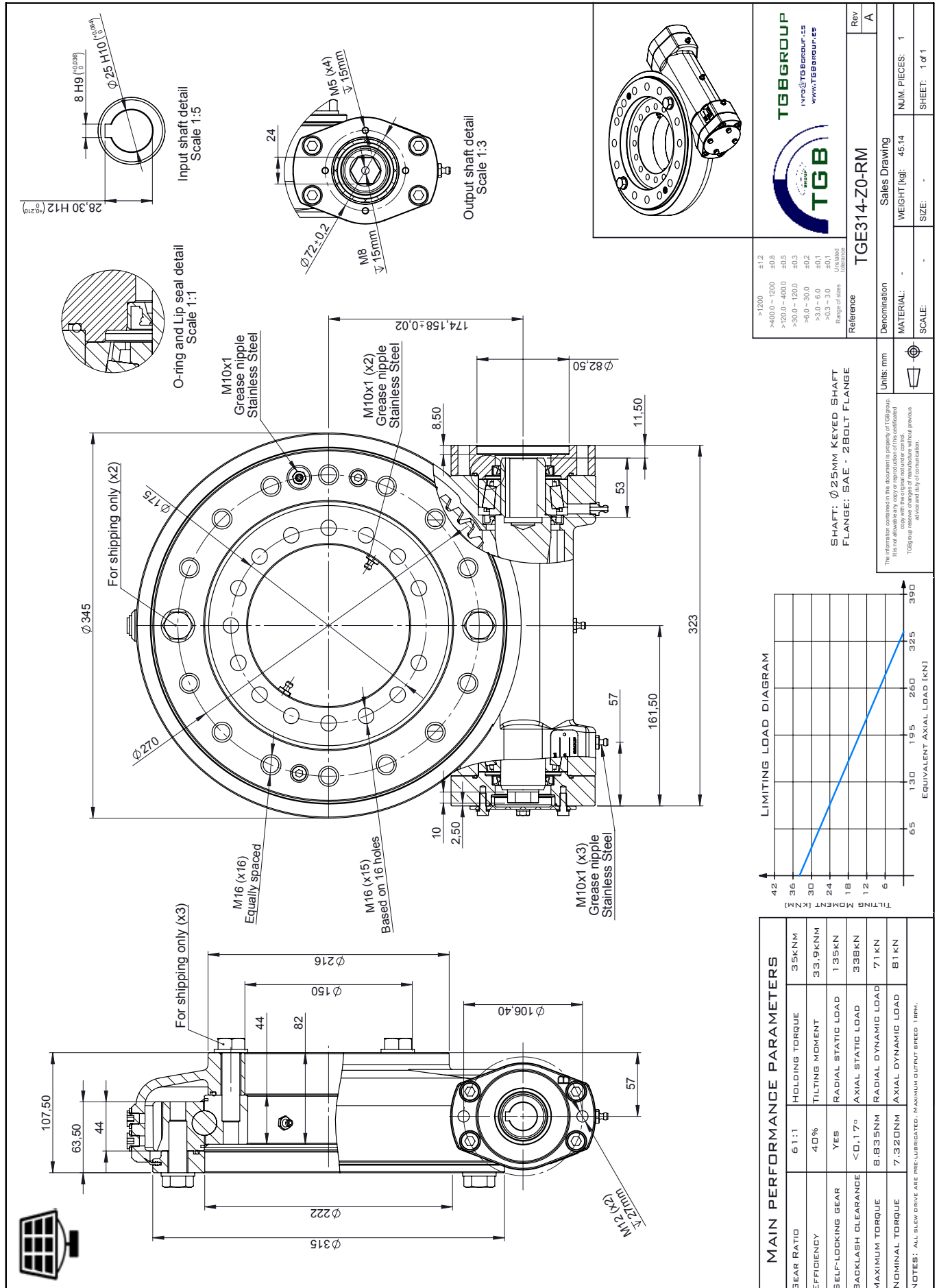
- Construction machinery, indoor applications, etc.

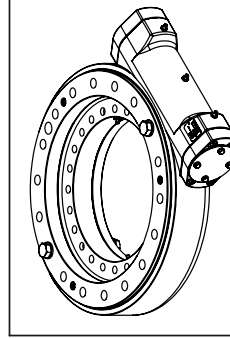


TGB GROUP TGB 14 rue du Tisserand, 25 www.tgbgroup.es		±1.2 >1200 >400.0 - 1200 ±0.8 >120.0 - 400.0 ±0.5 >30.0 - 120.0 ±0.3 >4.0 - 30.0 ±0.2 >3.0 - 4.0 ±0.1 >0.3 - 3.0 ±0.1 Unstabilized tolerance	
Reference TGE236-Z1-RM		Rev A	
Units: mm		Denomination Sales Drawing	
Shaft: Ø 16mm KEYED SHAFT		MATERIAL: - WEIGHT [kg]: 19.52 SCALE: - SIZE: -	
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TGE SERIES

METRIC

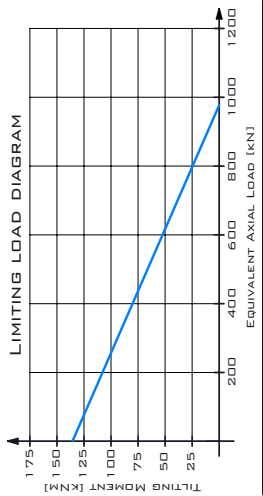
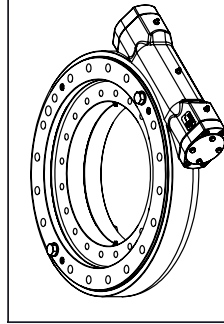
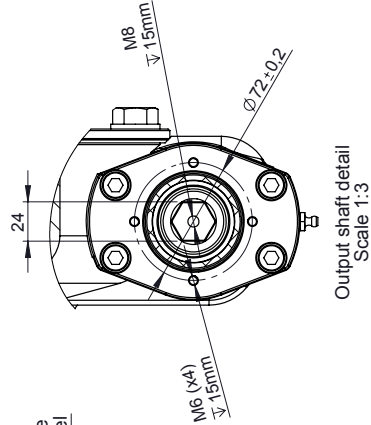
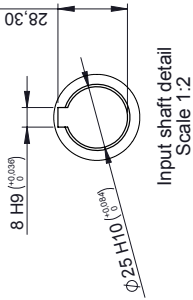
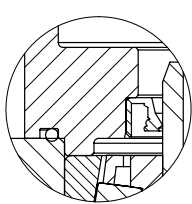
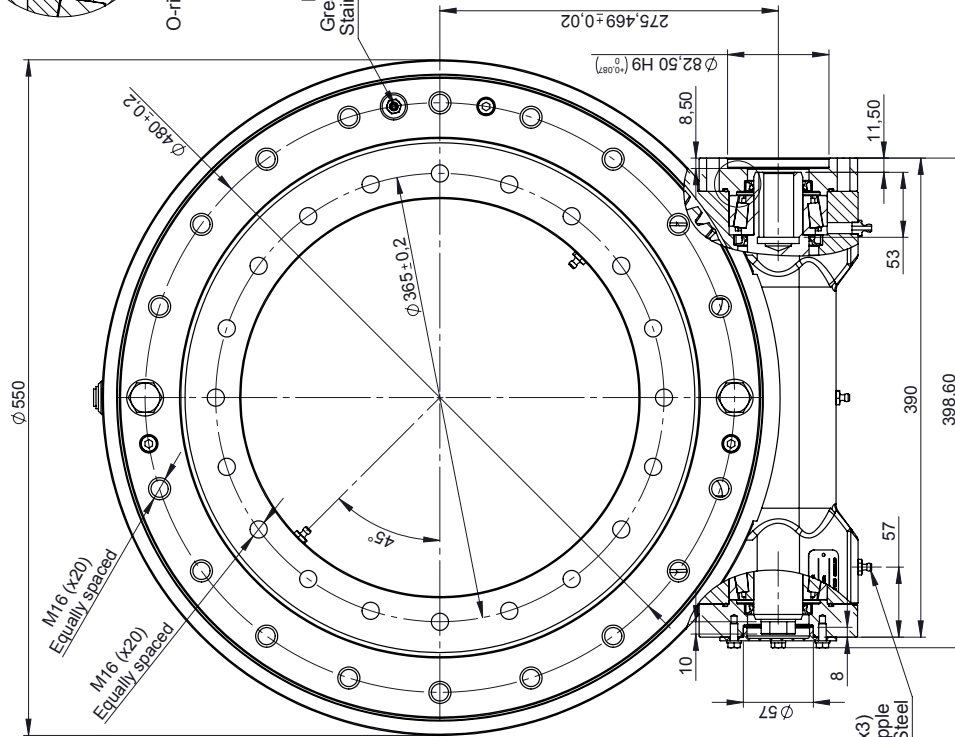
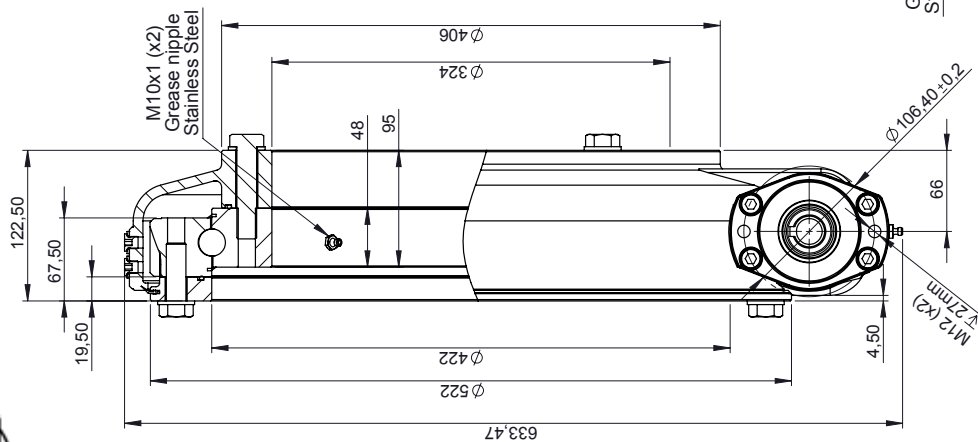




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TGE SERIES

METRIC



MAIN PERFORMANCE PARAMETERS				
GEAR RATIO	102:1	HOLDING TORQUE	65.1 kNm	
EFFICIENCY	40%	TILTING MOMENT	135.6 kNm	
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	391 kN	
BACKLASH CLEARANCE	< 0.15°	AXIAL STATIC LOAD	977 kN	
MAXIMUM TORQUE	18.034 Nm	RADIAL DYNAMIC LOAD	205 kN	
NOMINAL TORQUE	15.096 Nm	AXIAL DYNAMIC LOAD	235 kN	

NOTES: ALL BLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800 RPM.
ALL SCREWS DICHROMET TREATED

 		Rev	A
TGB523-Z0-RM		Denomination	
TGB523-Z0-RM		Sales Drawing	
TGB523-Z0-RM		WEIGHT (kg):	9272
TGB523-Z0-RM		NUM. PIECES:	1
TGB523-Z0-RM		SIZE:	-
TGB523-Z0-RM		SHEET:	1 of 1

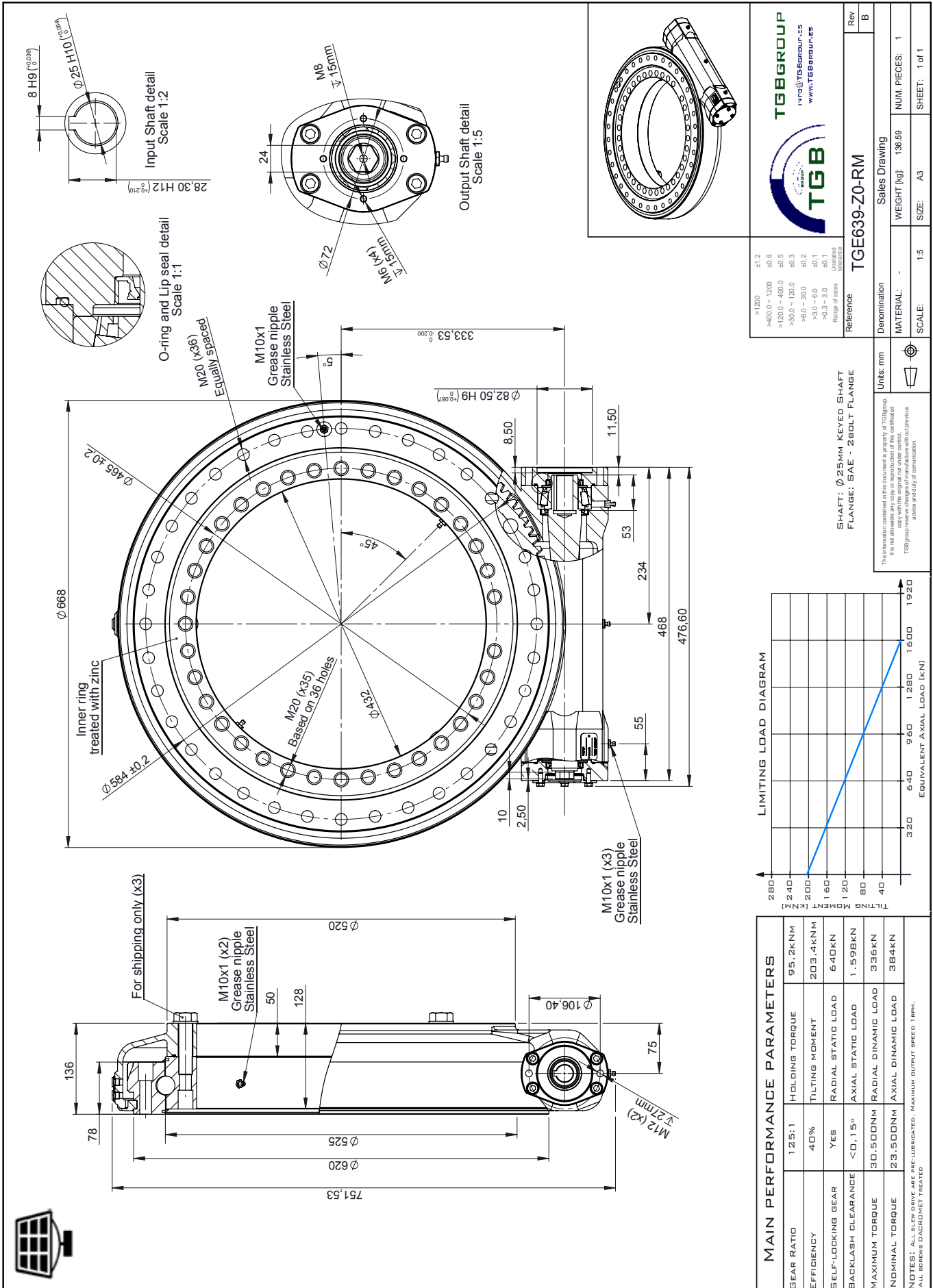
TGB523-Z0-RM		Units: mm	
TGB523-Z0-RM		MATERIAL:	-
TGB523-Z0-RM		SCALE:	-

SHAFT: Ø 25MM KEYS SHAFT
FLANGE: SAE - 2 BOLT FLANGE

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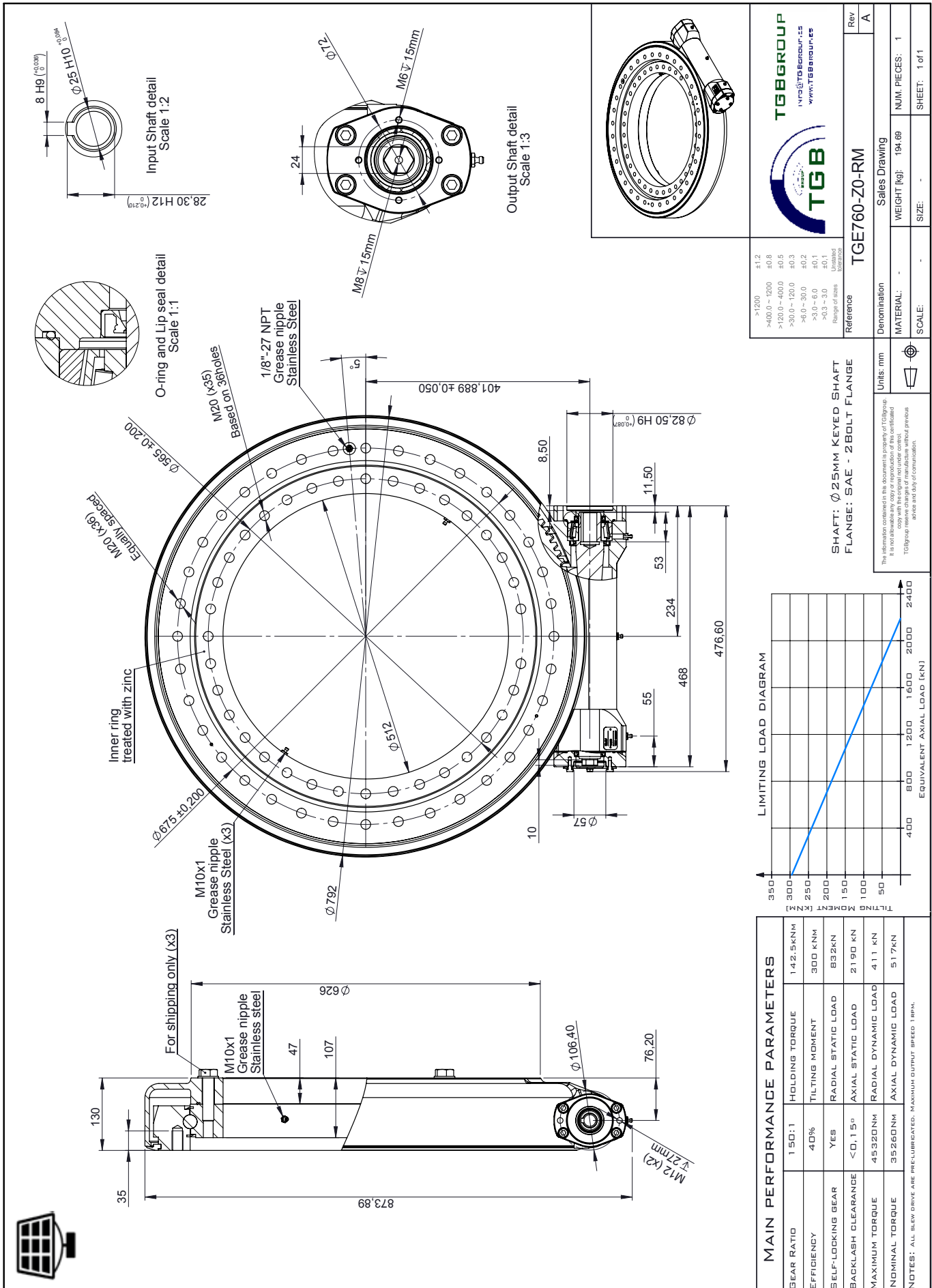
TGE SERIES

METRIC



TGE SERIES

METRIC

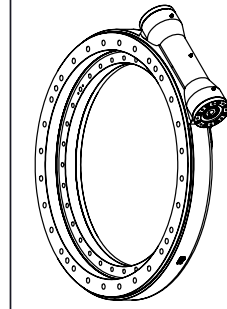
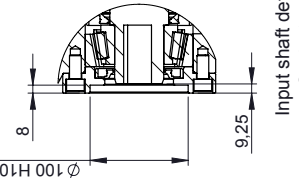
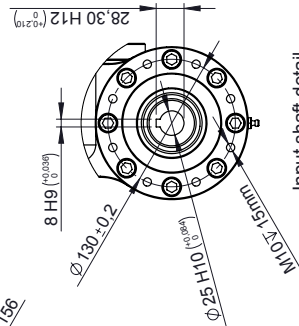
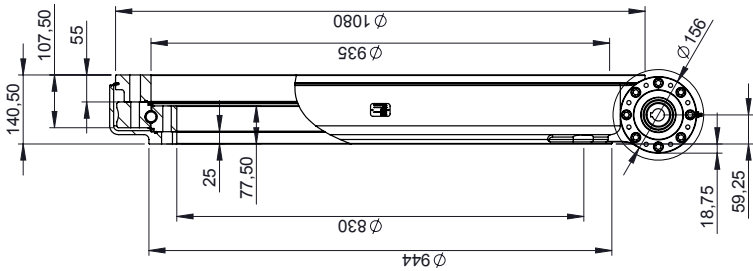
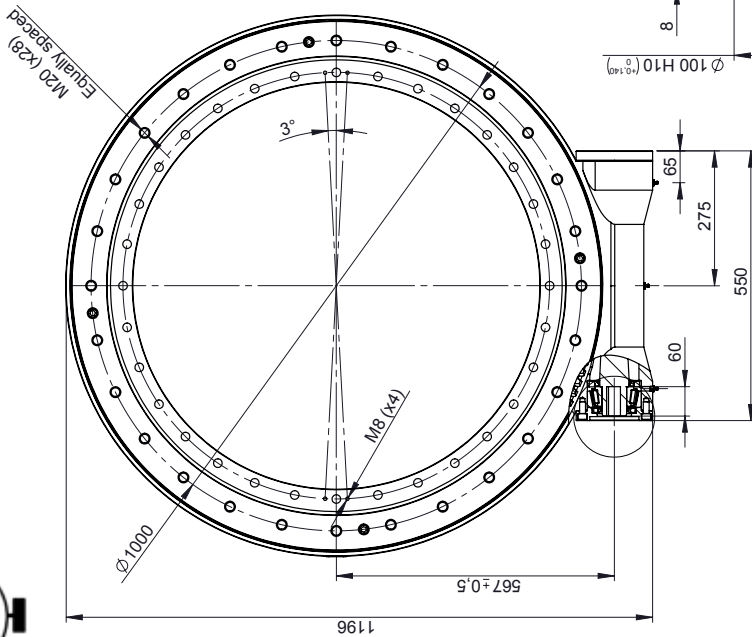
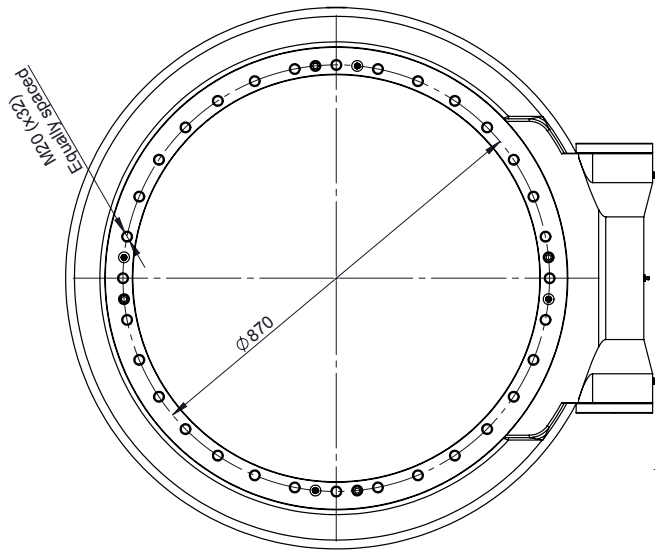


TGB GROUP TGB GROUP TGB GROUP TGB GROUP	Reference TGE760-Z0-RM		Rev A
	Denomination Sales Drawing		NUM. PIECES: 1
Material: -		WEIGHT (kg): 194.69	SIZE: -
SCALE: -		SHEET: 1 of 1	

Units: mm	SHAF: Ø25MM KEYED SHAFT FLANGE: SAE - 2BOLT FLANGE
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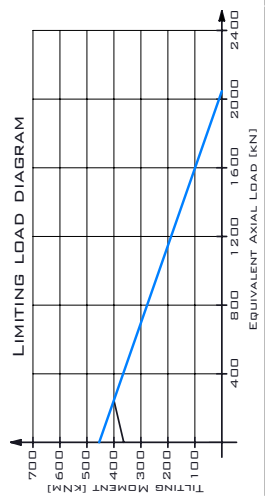
TGE SERIES

METRIC



MAIN PERFORMANCE PARAMETERS				
GEAR RATIO	150:1	HOLDING TORQUE	90KNM	
EFFICIENCY	40%	TILTING MOMENT	450KNM	
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	800KN	
BACKLASH CLEARANCE	<0.15°	AXIAL STATIC LOAD	2.100KN	
MAXIMUM TORQUE	72.500NM	RADIAL DYNAMIC LOAD	400KN	
NOMINAL TORQUE	30.000NM	AXIAL DYNAMIC LOAD	500KN	

NOTES: ALL BLOW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800RPM.



>1200	±1.2
>400.0 ~ 1200	±0.8
>120.0 ~ 400.0	±0.5
>30.0 ~ 120.0	±0.3
>6.0 ~ 30.0	±0.2
>3.0 ~ 6.0	±0.1
>0.3 ~ 3.0	±0.1
Range of sizes	Unlimited



Reference	TGE1050-Z0-LM	Rev	A
Denomination	TGE1050 - Sales Drawing		
MATERIAL:	-	WEIGHT [kg]:	303.61
SCALE:	-	NUM. PIECES:	1
		SIZE:	1 of 1

SHAFT: Ø25MM KEYS SHAFT

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DADA SERIES



DESCRIPTION

The DADA series are our bigger size slew drives which are able to withstand high loads on torque and tilting moment due to its hardy geometry. With a cylindrical screw worm and globoid slewing ring, this serie of drives guarantees a low backlash and smooth operation when heavy loads are applied.

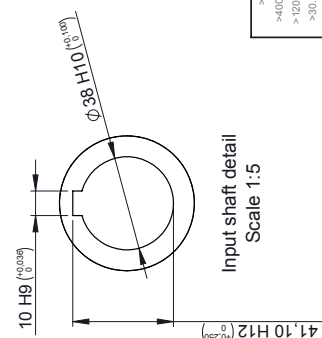
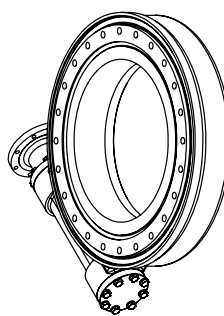
This kind of slew drive includes an external lip seal that provides a higher protection against dust and water.

MAIN FEATURES

- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric; Shaft types: Keyed shaft

MAIN APPLICATIONS

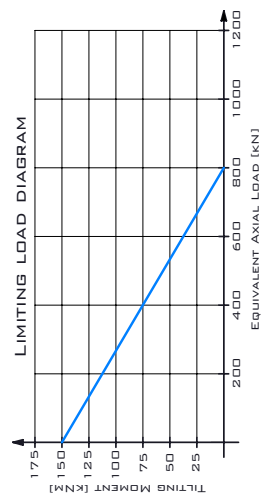
- Solar trackers, Shipyard cranes, etc.



Input shaft detail
Scale 1:5

MAIN PERFORMANCE PARAMETERS			
GEAR RATIO	102:1	HOLDING TORQUE	84K _N M
EFFICIENCY	34%	TILTING MOMENT	150K _N M
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	315K _N
BACKLASH CLEARANCE	<0.03° (<0.5MRAD)	AXIAL STATIC LOAD	800K _N
MAXIMUM TORQUE	50,000N _M	RADIAL DYNAMIC LOAD	160K _N
IP	55	AXIAL DYNAMIC LOAD	380K _N

NOTES: ALL GLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 10RPM.



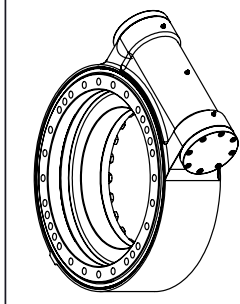
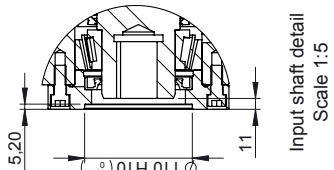
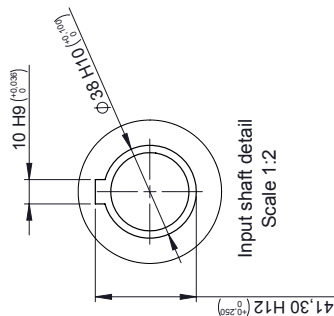
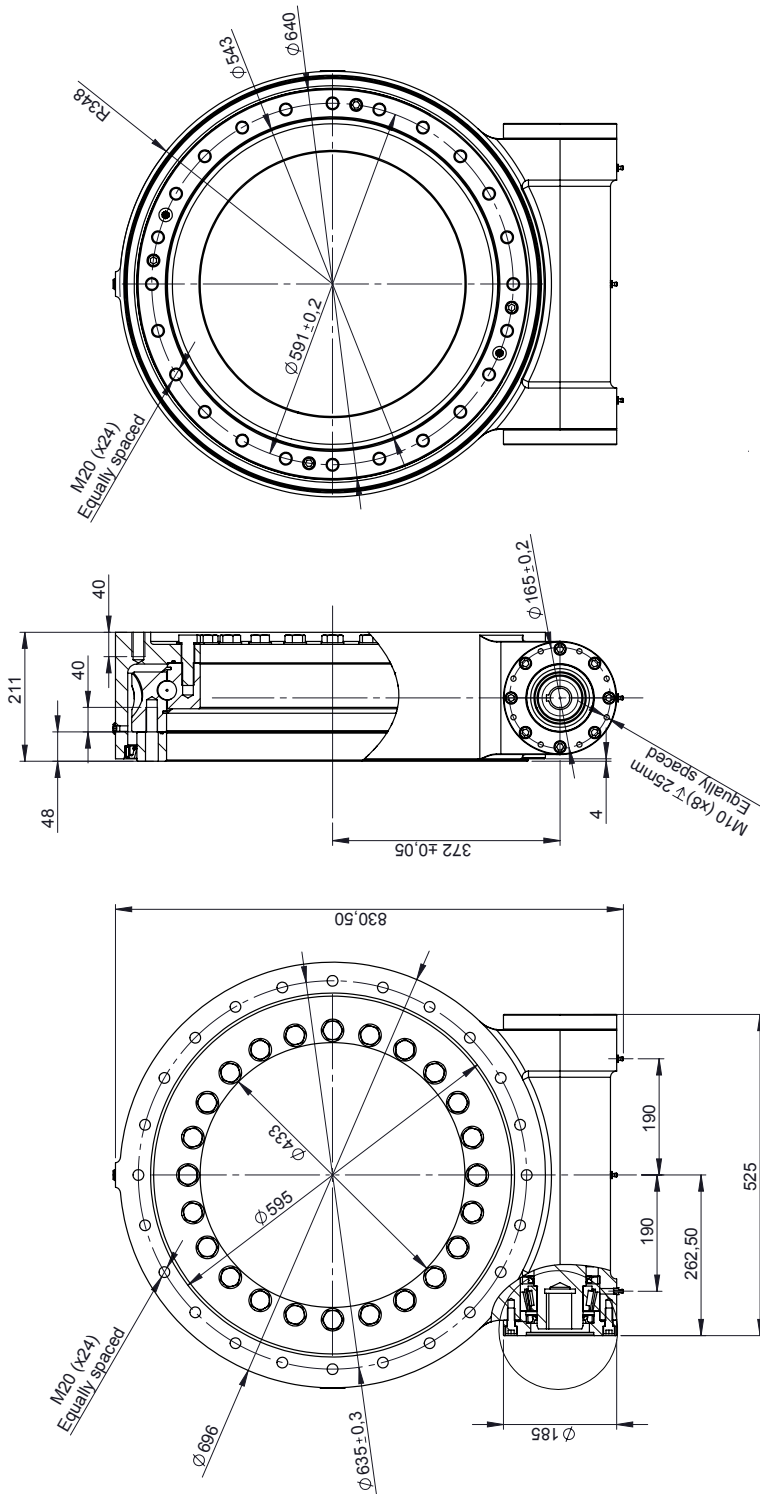
>1200 +1.2 >4000 - 1200 +0.8 >1200 - 4000 +0.5 >300 - 1200 +0.3 >60 - 300 +0.2 >10 - 60 +0.1 >0.3 - 10 +0.1 Unfilled tolerance	 TGB TGB GROUP 11430 TGB Group, 15 www.tgbgroup.es	Reference DADA6-Z0-LM	Rev B
Denomination Sales Drawing	MATERIAL: -	WEIGHT [kg]: 183.23	NUM. PIECES: 1
SCALE:	SIZE: -	SHEET: 1 of 1	

41_10 H12	Scale 1:5	SHAFT: Ø38MM KEYS SHAFT	Units: mm	
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SHAFT: Ø 38MM KEYED SHAFT

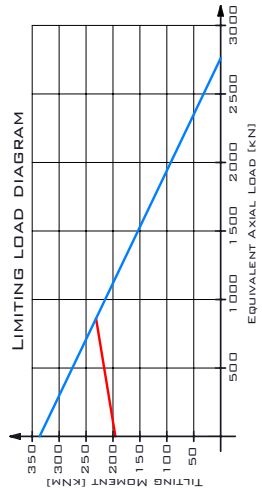
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DADA SERIES



MAIN PERFORMANCE PARAMETERS				
GEAR RATIO	80:1	HOLDING TORQUE	105kNm	
EFFICIENCY	30%	TILTING MOMENT	340kNm	
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	1.242kN	
BACKLASH CLEARANCE	<0.03°	AXIAL STATIC LOAD	2.755kN	
MAXIMUM TORQUE	50.000Nm	RADIAL DYNAMIC LOAD	312kN	
NOMINAL TORQUE	28.000Nm	AXIAL DYNAMIC LOAD	688kN	

NOTES: ALL BEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 18PM.



Reference		Units: mm	
>1200	±1.2	Deromination	Shaft: Ø38mm KEYS SHAFT
>400.0 ~ 1200	±0.8	Material	
>120.0 ~ 400.0	±0.5	Scale	
>30.0 ~ 120.0	±0.3		
>6.0 ~ 30.0	±0.2		
>3.0 ~ 6.0	±0.1		
>0.3 ~ 3.0	±0.1		



TGB GROUP
www.tgbgroup.com



TGB GROUP
www.tgbgroup.com

DADA8S-Z0-RM

Rev: A

SALES DRAWING

WEIGHT [kg]: 300.88

NUM. PIECES: 1

SCALE: -

SHEET: 1 of 1

VERTICAL SERIES



DESCRIPTION

The Vertical series are slew drives provided by a foot which allows a direct assembly on a structure where the slew drive will work in vertical position. Instead of a slewing ring, this kind of slew drive consists in a geared ring assembled on the housing by bearings or bushings.

This kind of slew drive includes an external lip seal that provides a higher protection against dust and water.

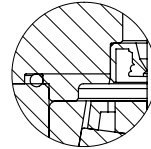
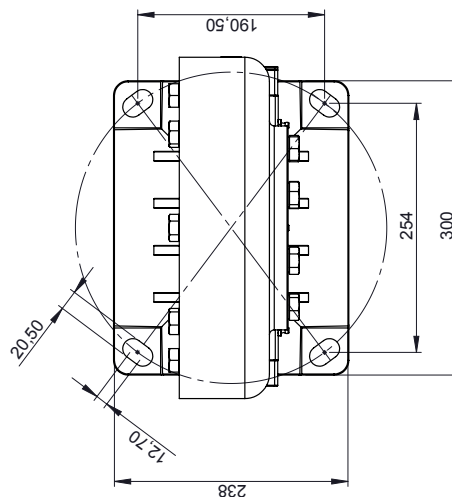
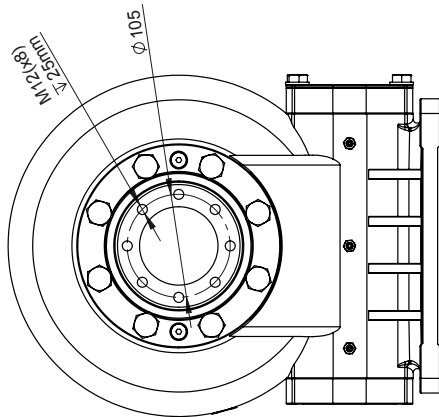
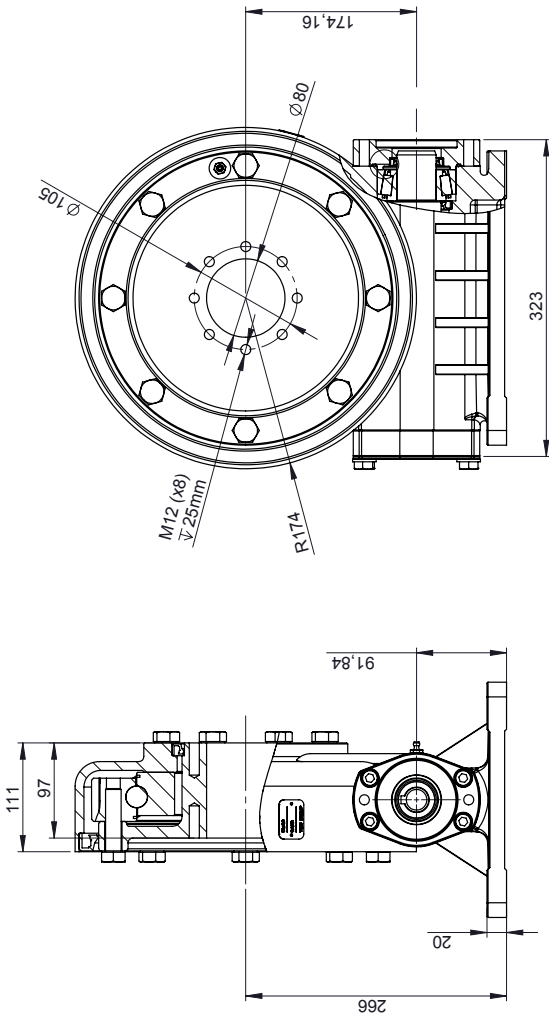
MAIN FEATURES

- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

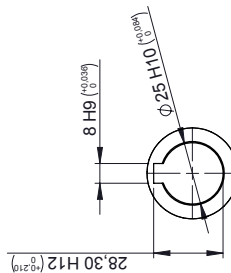
MAIN APPLICATIONS

- Solar trackers (1 axis - horizontal axis of rotation)

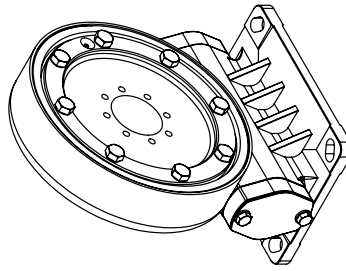
VERTICAL SERIES



Lip seal detail
Scale 1:1

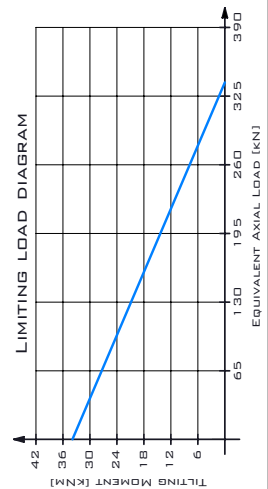


Input shaft detail
Scale 1:2



MAIN PERFORMANCE PARAMETERS					
GEAR RATIO	6:1:1	HOLDING TORQUE	35kNm		
EFFICIENCY	40%	TILTING MOMENT	33,9kNm		
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	135kN		
BACKLASH CLEARANCE	<0,17°	AXIAL STATIC LOAD	338kN		
MAXIMUM TORQUE	8.835Nm	RADIAL DYNAMIC LOAD	71kN		
NOMINAL TORQUE	7.320Nm	AXIAL DYNAMIC LOAD	81kN		

NOTES: ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1000RPM.



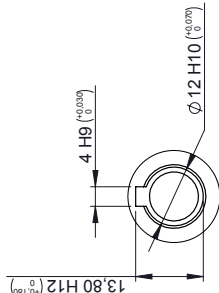
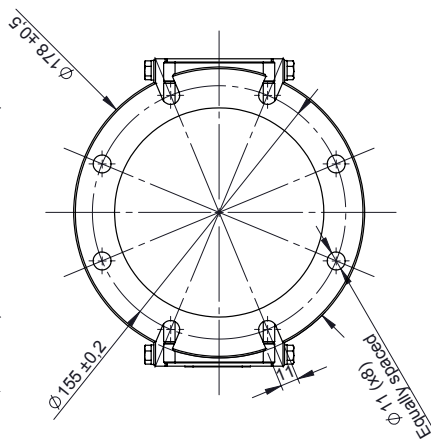
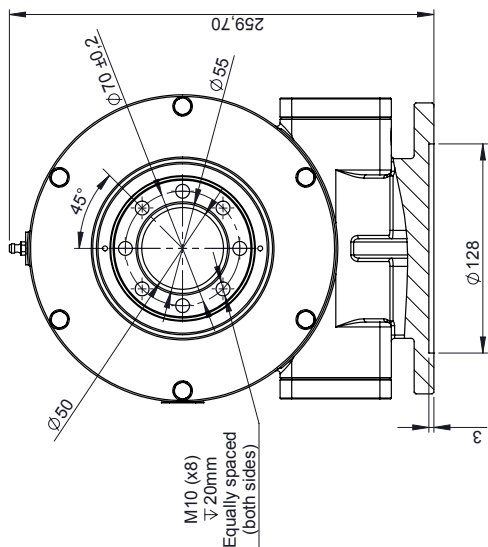
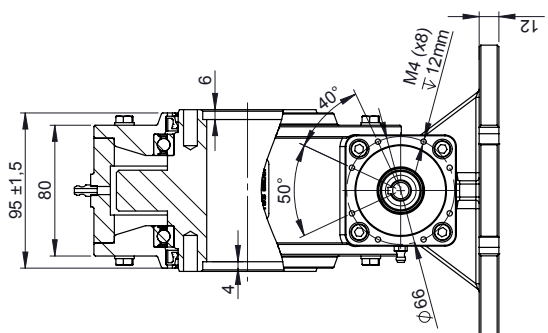
Reference	Denomination
>1200 ±1,2	
>400,0 ~ 1200 ±0,8	
>120,0 ~ 400,0 ±0,5	
>30,0 ~ 120,0 ±0,3	
>8,0 ~ 30,0 ±0,2	
>3,0 ~ 8,0 ±0,1	
>0,3 ~ 3,0 ±0,1	
Range of sizes	Unlimited



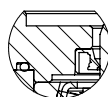
Reference	Denomination	Units: mm	Scale	Material	Weight [kg]	Num. Pieces	Sheet
TGZ314-Z1-RM	Sales Drawing				66,15	1	1 of 1

SHAFT: $\phi 25mm$ KEYED SHAFT

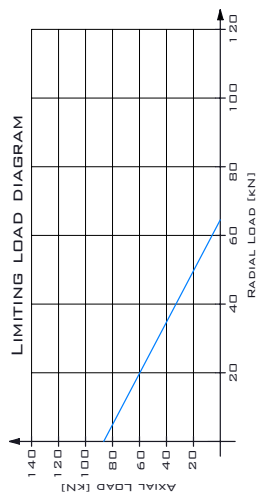
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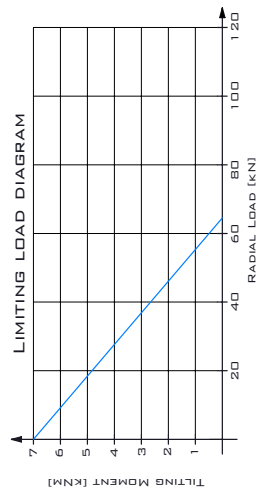
Input shaft detail
Scale 1:1



O-ring and Lip seal detail
Scale 1:1



LIMITING LOAD DIAGRAM



LIMITING LOAD DIAGRAM

MAIN PERFORMANCE PARAMETERS		
GEAR RATIO	62:1	HOLDING TORQUE 4KNM
EFFICIENCY	30%	TILTING MOMENT 852NM
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD 32KN
BACKLASH CLEARANCE	<0.20°	AXIAL STATIC LOAD 1 2.8KN
MAXIMUM TORQUE	1.200NM	RADIAL DYNAMIC LOAD 30KN
NOMINAL TORQUE	600NM	AXIAL DYNAMIC LOAD 12KN

NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 18RPM.
ALL SCREWS DACROMET TREATED

NOTES: ALL SLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1 RPM.

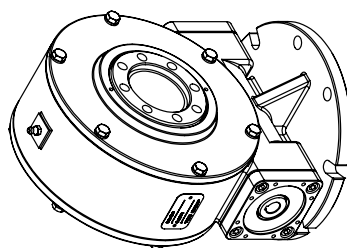
 TGB GROUP TRADING COMPANY, LTD. www.tgbgroup.co.kr		Reference	TVR160-Z0-RM	Rev	A
Denomination	Sales Drawing				
MATERIAL:	WEIGHT [kg]: 18.27	NUM. PIECES: 1			
SCALE:	SIZE: -	SHEET: 1 of 1			

SHAFT: Ø 12MM KEYED SHAFT

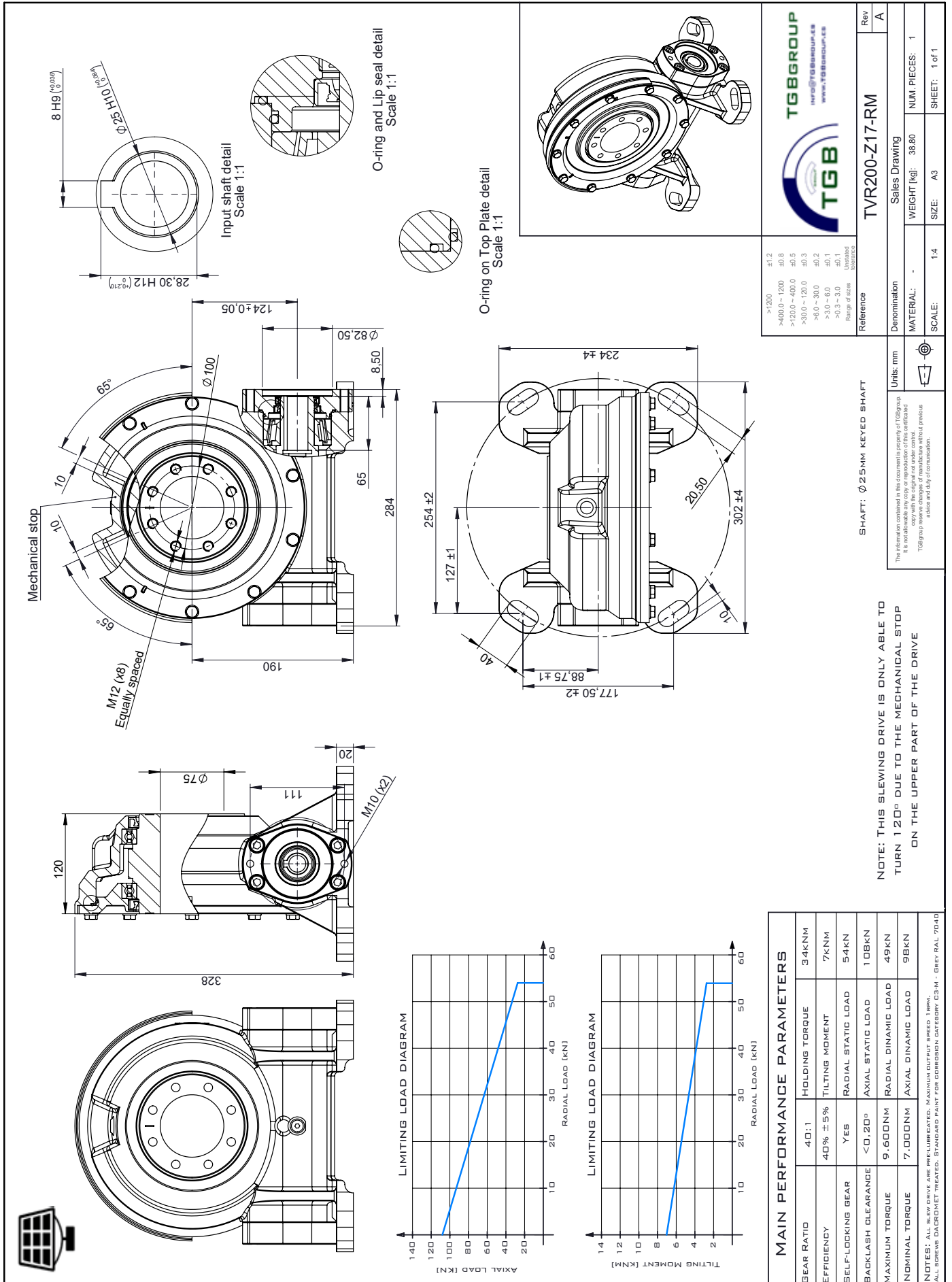
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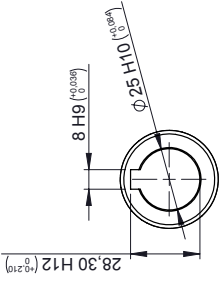
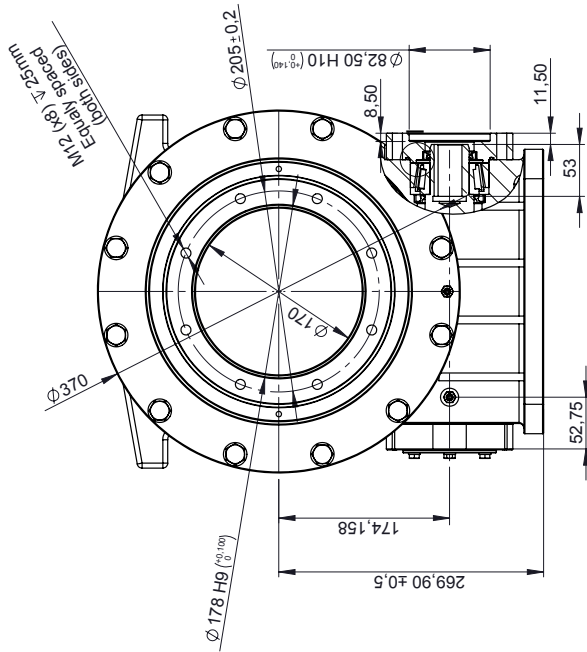
Units: mm	
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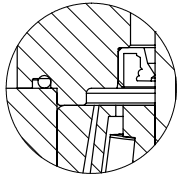
VERTICAL SERIES



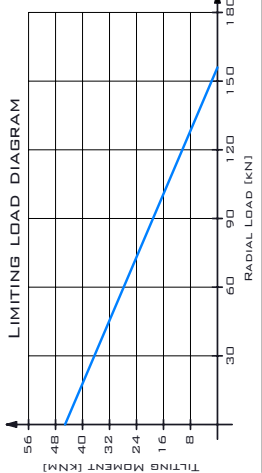
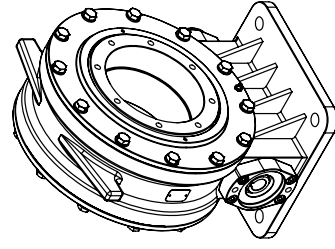
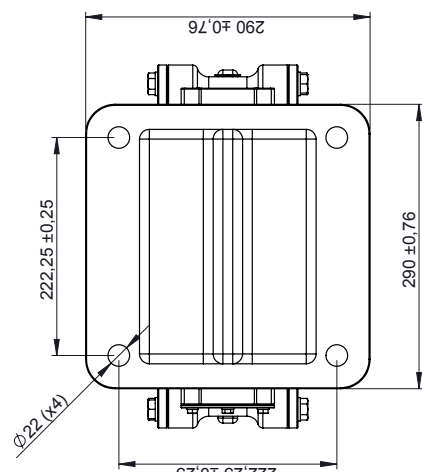
VERTICAL SERIES



Input shaft detail
Scale 1:2



O-ring and Lip seal detail
Scale 1:1



MAIN PERFORMANCE PARAMETERS					
GEAR RATIO	61:1	HOLDING TORQUE	35kNm		
EFFICIENCY	40%	TILTING MOMENT	33.9kNm		
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	135kN		
BACKLASH CLEARANCE	<0.17°	AXIAL STATIC LOAD	338kN		
MAXIMUM TORQUE	8.835NM	RADIAL DYNAMIC LOAD	71 kN		
NOMINAL TORQUE	7.320NM	AXIAL DYNAMIC LOAD	81 kN		

NOTES: ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1000 RPM.

Reference		Denomination		Sales Drawing	
>1200	± 1.2	>1200.0 ~ 1200.0	± 0.8		
>400.0 ~ 1200.0	± 0.8	>400.0 ~ 400.0	± 0.5		
>120.0 ~ 400.0	± 0.5	>120.0 ~ 120.0	± 0.3		
>30.0 ~ 120.0	± 0.3	>30.0 ~ 30.0	± 0.2		
>6.0 ~ 30.0	± 0.2	>6.0 ~ 6.0	± 0.1		
>3.0 ~ 6.0	± 0.1	>3.0 ~ 3.0	Unlimited		
>0.3 ~ 3.0	Unlimited				

Reference		Denomination		Sales Drawing	
>1200	± 1.2	>1200.0 ~ 1200.0	± 0.8		
>400.0 ~ 1200.0	± 0.8	>400.0 ~ 400.0	± 0.5		
>120.0 ~ 400.0	± 0.5	>120.0 ~ 120.0	± 0.3		
>30.0 ~ 120.0	± 0.3	>30.0 ~ 30.0	± 0.2		
>6.0 ~ 30.0	± 0.2	>6.0 ~ 6.0	± 0.1		
>3.0 ~ 6.0	± 0.1	>3.0 ~ 3.0	Unlimited		
>0.3 ~ 3.0	Unlimited				

Reference		Denomination		Sales Drawing	
>1200	± 1.2	>1200.0 ~ 1200.0	± 0.8		
>400.0 ~ 1200.0	± 0.8	>400.0 ~ 400.0	± 0.5		
>120.0 ~ 400.0	± 0.5	>120.0 ~ 120.0	± 0.3		
>30.0 ~ 120.0	± 0.3	>30.0 ~ 30.0	± 0.2		
>6.0 ~ 30.0	± 0.2	>6.0 ~ 6.0	± 0.1		
>3.0 ~ 6.0	± 0.1	>3.0 ~ 3.0	Unlimited		
>0.3 ~ 3.0	Unlimited				

Reference		Denomination		Sales Drawing	
>1200	± 1.2	>1200.0 ~ 1200.0	± 0.8		
>400.0 ~ 1200.0	± 0.8	>400.0 ~ 400.0	± 0.5		
>120.0 ~ 400.0	± 0.5	>120.0 ~ 120.0	± 0.3		
>30.0 ~ 120.0	± 0.3	>30.0 ~ 30.0	± 0.2		
>6.0 ~ 30.0	± 0.2	>6.0 ~ 6.0	± 0.1		
>3.0 ~ 6.0	± 0.1	>3.0 ~ 3.0	Unlimited		
>0.3 ~ 3.0	Unlimited				

Reference		Denomination		Sales Drawing	
>1200	± 1.2	>1200.0 ~ 1200.0	± 0.8		
>400.0 ~ 1200.0	± 0.8	>400.0 ~ 400.0	± 0.5		
>120.0 ~ 400.0	± 0.5	>120.0 ~ 120.0	± 0.3		
>30.0 ~ 120.0	± 0.3	>30.0 ~ 30.0	± 0.2		
>6.0 ~ 30.0	± 0.2	>6.0 ~ 6.0	± 0.1		
>3.0 ~ 6.0	± 0.1	>3.0 ~ 3.0	Unlimited		
>0.3 ~ 3.0	Unlimited				

DAD SERIES



DESCRIPTION

The Dual Axis Drive series consists on a combination of a vertical and a horizontal slew drive that allows the movement on both axis in order to use one complete part to perform all the movements required on a solar tracker.

This kind of slew drive includes an external lip seal that provides a higher protection against dust and water.

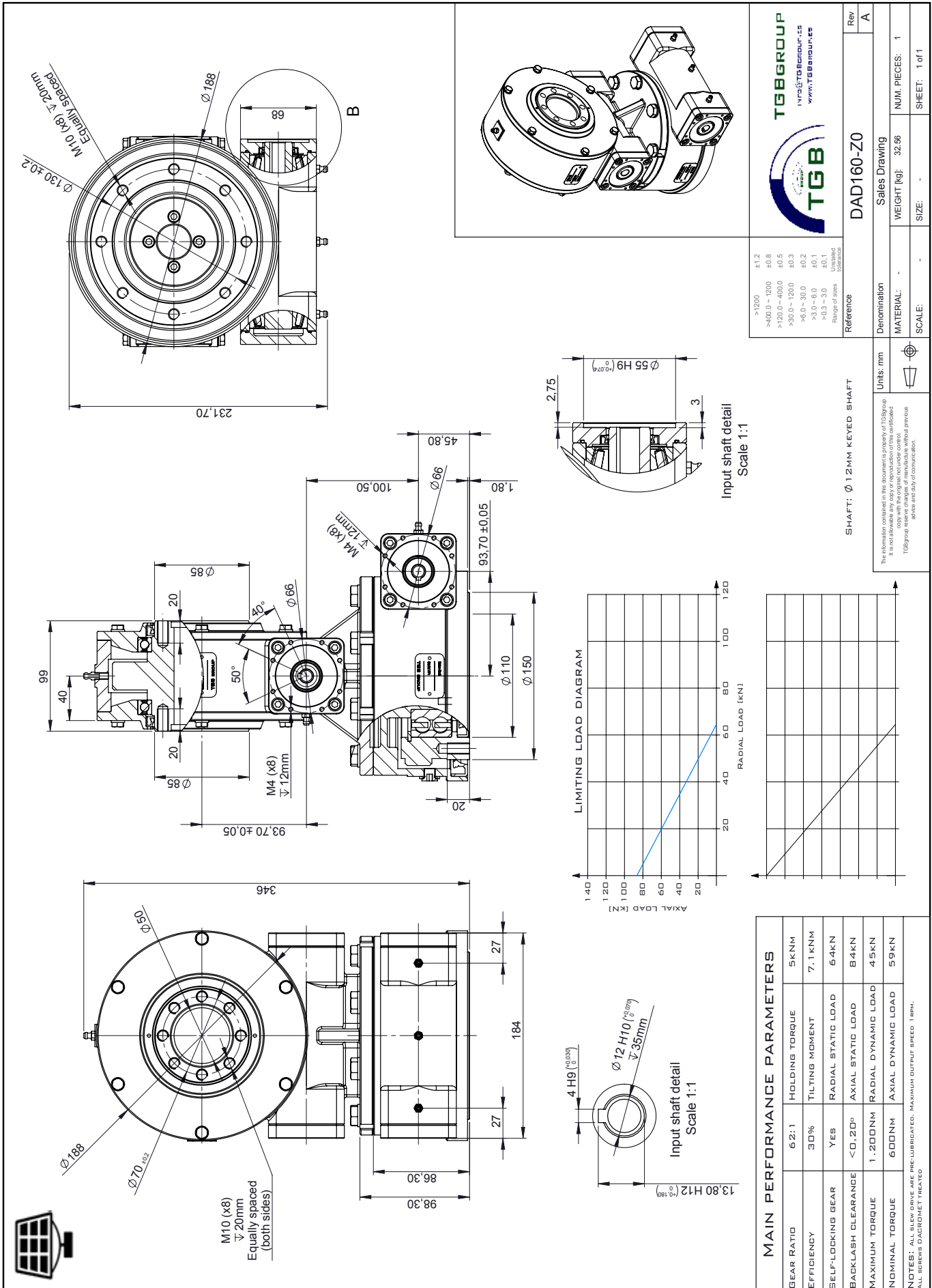
MAIN FEATURES

- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric; Shaft types: Keyed shaft

MAIN APPLICATIONS

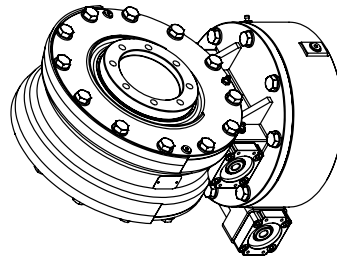
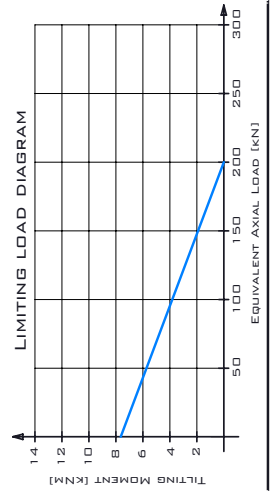
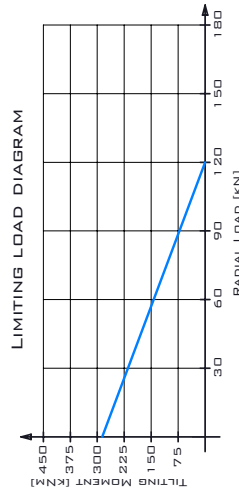
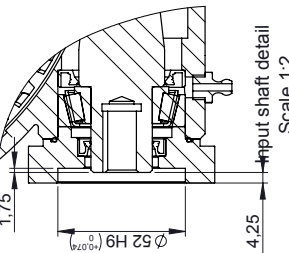
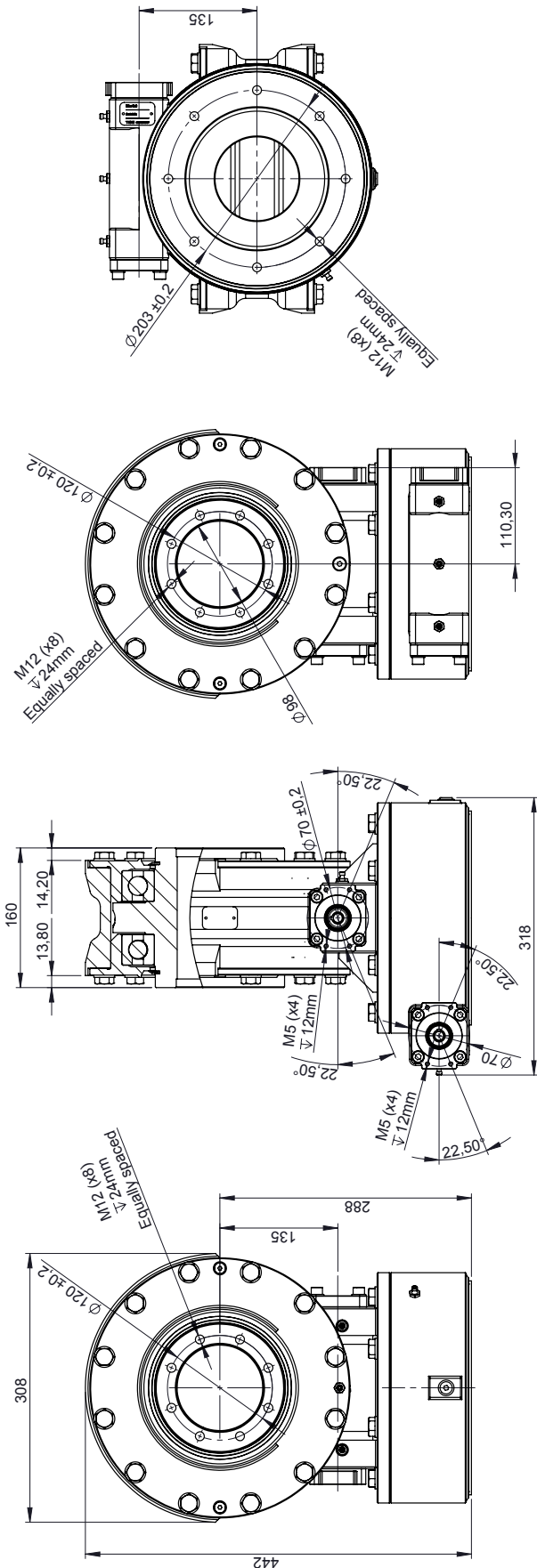
- Solar trackers (2 axis)

DAD SERIES

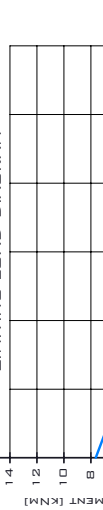


TGB GROUP www.tgbgroup.es TGB		DAD160-Z0 Reference		Rev A
SALES DRAWING WGT [kg]: 32.86 NUM. PIECES: 1 SCALE: 1 of 1		Denomination Sales Drawing		
Units: mm Material: Scale:		Shaft: Ø 12mm KEYED SHAFT Input shaft detail Scale 1:1		
MAIN PERFORMANCE PARAMETERS		Reference		
GEAR RATIO	62:1	HOLDING TORQUE	5kNm	
EFFICIENCY	30%	TILTING MOMENT	7.1 kNm	
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	64kN	
BACKLASH CLEARANCE	<0.20°	AXIAL STATIC LOAD	84kN	
MAXIMUM TORQUE	1.200Nm	RADIAL DYNAMIC LOAD	45kN	
NOMINAL TORQUE	600Nm	AXIAL DYNAMIC LOAD	59kN	
NOTES: ALL BEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1 RPM. ALL BEWRE DACHMET TREATED				

DAD SERIES



MAIN PERFORMANCE PARAMETERS			
GEAR RATIO	46:1	HOLDING TORQUE	10.8KNM
EFFICIENCY	40%	TILTING MOMENT	7.5KNM
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	75kN
BACKLASH CLEARANCE	<0.1°	AXIAL STATIC LOAD	200kN
MAXIMUM TORQUE	5.680NM	RADIAL DYNAMIC LOAD	77kN
NOMINAL TORQUE	2.800NM	AXIAL DYNAMIC LOAD	55kN
NOTES: ALL BLEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800RPM.			

LIMITING LOAD DIAGRAM	
	

SHAFT: Ø 12MM KEVED SHAFT		Units: mm	The information contained in this document is property of TGBgroup. It is not to be used for any other purpose without the official copy with the original logo under control. TGBgroup reserve charges of manufacture without previous notice and duty of communication.	
Reference		Denomination	NUM. PIECES: 1	
DAD5-Z1-LM		MATERIAL:	WEIGHT [kg]: 90.33	
		SCALE:	SIZE: -	
			SHEET: 1 of 1	

		TGBGROUP	
I.V.S.® TGB GROUP, S.L		www.TGBgroup.es	

>1200	±1.2
>400.0 ~ 1200	±0.8
>120.0 ~ 400.0	±0.5
>50.0 ~ 120.0	±0.3
>6.0 ~ 30.0	±0.2
>3.0 ~ 6.0	±0.1
>0.3 ~ 3.0	±0.1
Unstated tolerance	
Range of sizes	



NUM. PIECES: 1

SHEET: 1 of 1

WEIGHT [kg]: 90.33

SCALE:

NUM. PIECES: 1

SHEET: 1 of 1

WEIGHT [kg]: 90.33

SCALE:

NUM. PIECES: 1

SHEET: 1 of 1

WEIGHT [kg]: 90.33

SCALE:

NUM. PIECES: 1

SHEET: 1 of 1

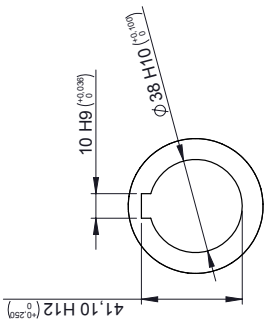
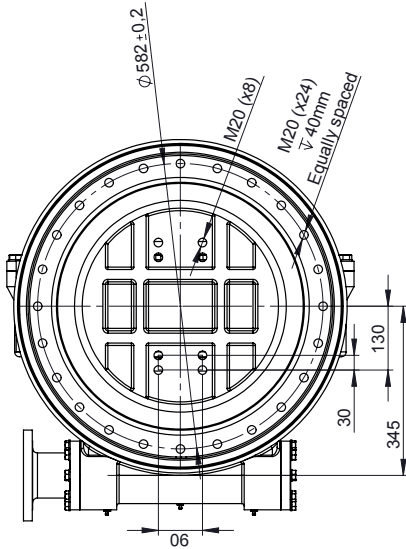
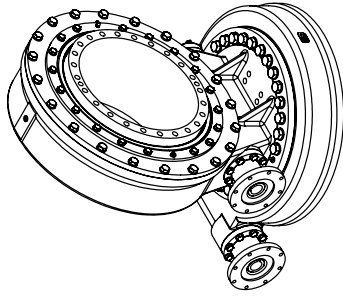
WEIGHT [kg]: 90.33

SCALE:

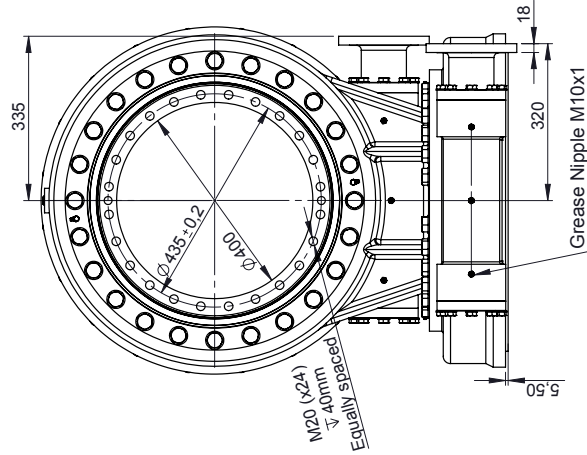
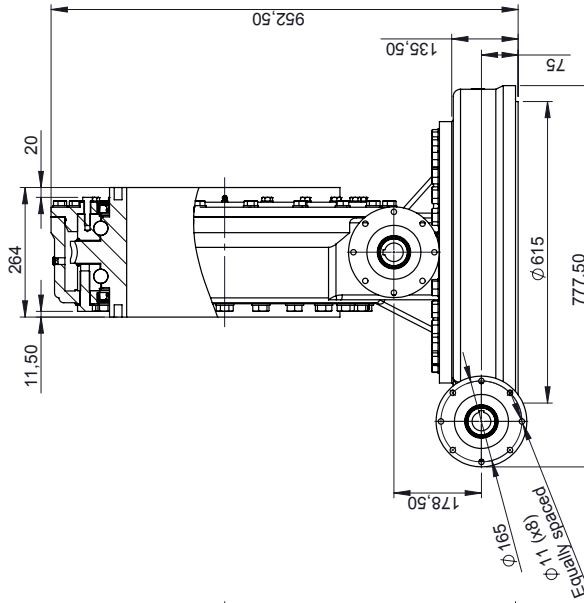
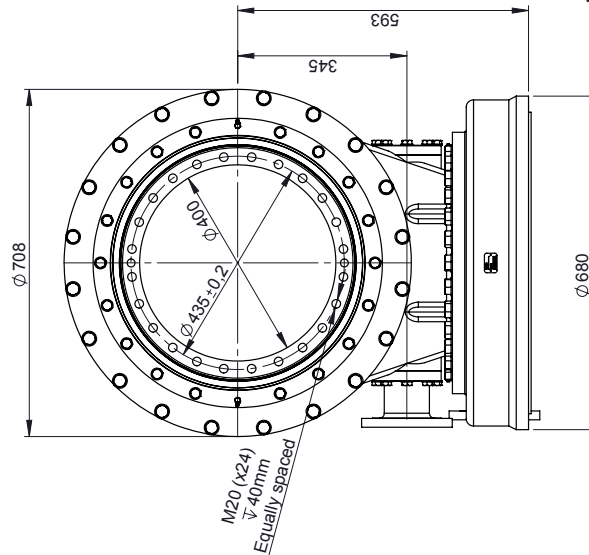
NUM. PIECES: 1

SHEET: 1 of 1

DAD SERIES

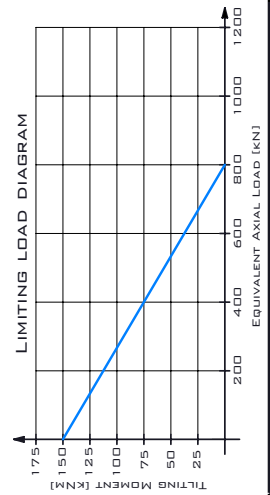


Input shaft detail
Scale 1:2



MAIN PERFORMANCE PARAMETERS					
GEAR RATIO	1 02:1	HOLDING TORQUE	84KNM		
EFFICIENCY	34%	TILTING MOMENT	1 50KNM		
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	315KN		
BACKLASH CLEARANCE	<0.030°	AXIAL STATIC LOAD	800KN		
MAXIMUM TORQUE	50.000NM	RADIAL DYNAMIC LOAD	1 60KN		
IP	55	AXIAL DYNAMIC LOAD	380KN		

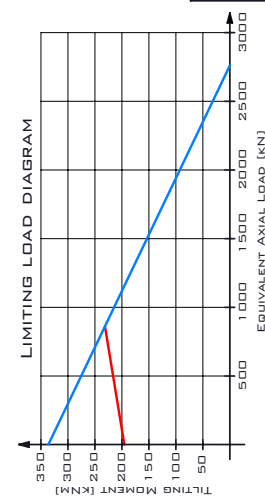
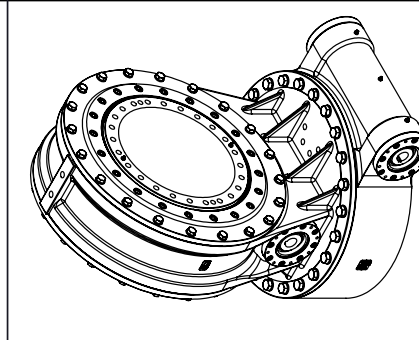
NOTES: ALL BEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1100 RPM.
GREASED WITH MOLIBDENUM DISULFUR COMPLEX GREASE



SHAFT: Ø38MM KEYS SHAFT

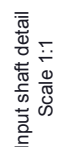
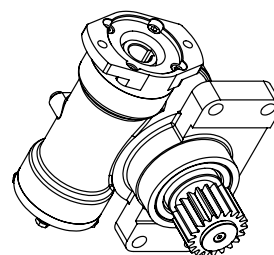
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TGB GROUP NRG@TGBgroup.es www.TGBgroup.es		Reference	DAD6-Z0-LM	Rev	B
TGB		Denomination	Sales Drawing	NUM. PIECES:	1
		MATERIAL:		WEIGHT [kg]:	598.25
		SCALE:		SIZE:	-
				SHEET:	1 of 1



TGB GROUP TGB 11930101 TO EUROPE-15 WWW.TGBGROUP.CZ		Rev A	
Reference		DAD8S-Z0-RM	
Range of sizes +0.1 -0.1 +0.3 -3.0 Unilateral Tolerances		Sales Drawing	
Units: mm		Denomination	
		MATERIAL: -	
		WEIGHT [kg]: 926.12	
		SCALE: -	
NUM. PIECES: 1		SHEET: 1 of 1	

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MAIN PERFORMANCE PARAMETERS			
GEAR RATIO	30:1	NOMINAL TORQUE	900NM
PISTON	CUSTOMER REQUIREMENTS	EFFICIENCY	40%

NOTES: ALL SLEW DRIVES ARE PRE-LUBRICATED.

>1200 +12				TGB GROUP info@tgbgroup.es www.tgbgroup.es	
Reference		TRP30-Z0-RM		Rev	A
Denomination		Sales Drawing		NUM. PIECES: 1	
MATERIAL: -		WEIGHT [kg]: 20.77		SHEET: 1 of 1	
SCALE:	-	SIZE:	-		

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ACCESSORIES

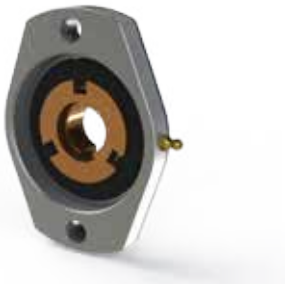
AC / DC / HYDRAULIC MOTORS



WORM GEARBOXES



BRAKE

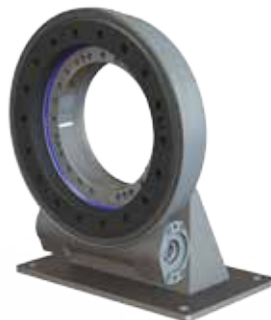


TGBgroup is able to provide complete solutions for different applications by supplying the drives with customized motorization or with brake.

TGBgroup also provides different accessories to attach our drives to the customers structures.

Some examples of these accessories that we usually provide are shown below.

VERTICAL SUPPORT



SQUARE END FLANGE



INQUIRY FORM

Comercial	Date	Client			
Target slew ring	Ref. E ☐ I ☐ SD ☐				
Target slew drive					
Working position	Horizontal ☐ Vertical ☐				
Output torque	Nominal	[kNm]			
	Maximum	[kNm]			
	Holding	[kNm]			
Output speed	Nominal (continous)	[rpm]			
	Maximum (intermittent)	[rpm]			
Combined nominal loads	Axial	[kN]			
	Radial	[kN]			
	Tilting moment	[kNm]			
Combined maximum loads	Axial	[kN]			
	Radial	[kN]			
	Tilting moment	[kNm]			
Desired lifetime [hours]					
Working conditions	Minimum temperature	[°C]			
	Maximum temperature	[°C]			
	Site / Location				
Load case 1	Load	[kN o kNm]	Time working or rotated degrees	Standby time between cycles	Number of cycles per hour
	Output torque				
	Axial				
	Radial				
	Tilting moment				
Load case 2 (if necessary)	Load	[kN o kNm]	Time working or rotated degrees	Standby time between cycles	Number of cycles per hour
	Output torque				
	Axial				
	Radial				
	Tilting moment				
Load case 3 (if necessary)	Load	[kN o kNm]	Time working or rotated degrees	Standby time between cycles	Number of cycles per hour
	Output torque				
	Axial				
	Radial				
	Tilting moment				
Motorization	AC ☐ DC ☐ Hydraulic ☐ Comments:				
Pinion					
Limit dimensions		Width	Length	Height	
Comments					

we *move*

Your movement solutions

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The Netherlands

Phone: +31 297 268 942
Email: info@tgbgroup.es



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