

**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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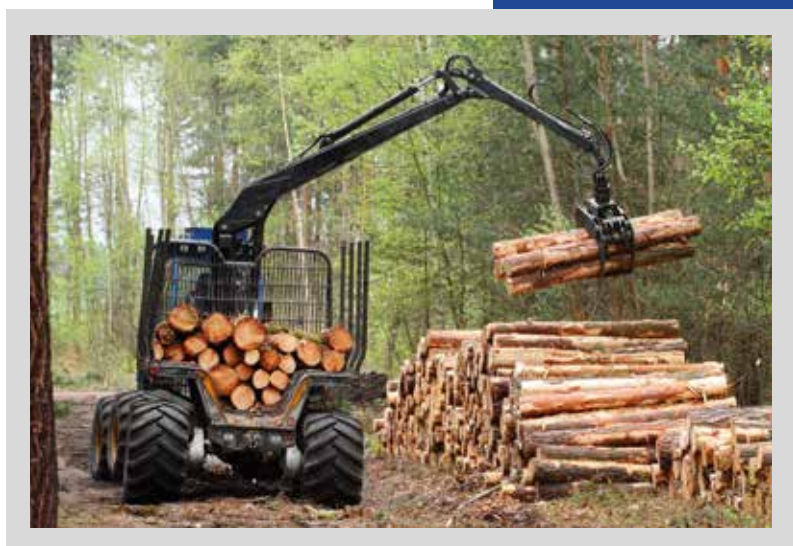
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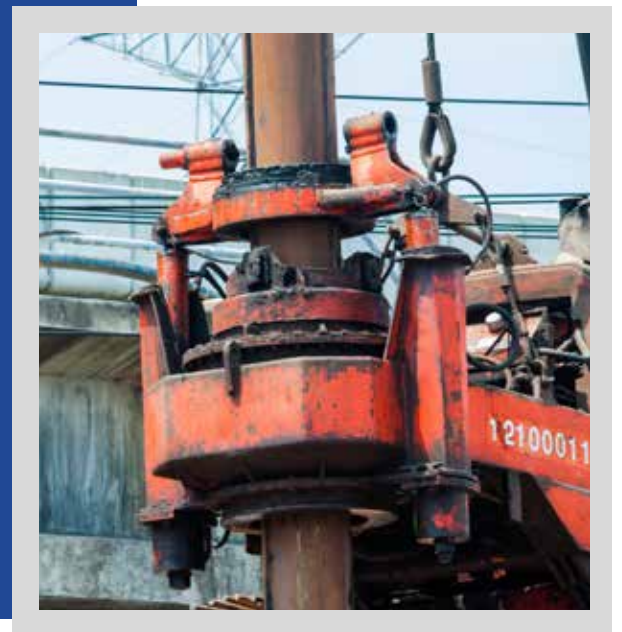
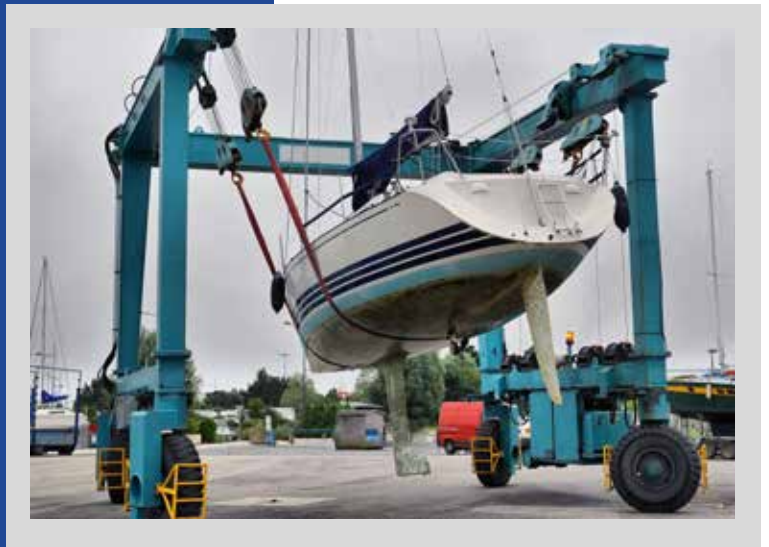
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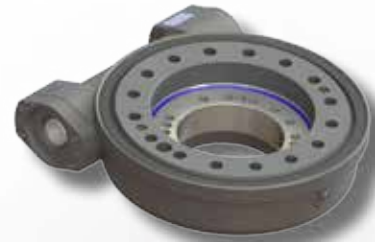
APPLICATION EXAMPLES - INDUSTRIAL



APPLICATION EXAMPLES - INDUSTRIAL



APPLICATION EXAMPLES - SOLAR



APPLICATION EXAMPLES - SOLAR

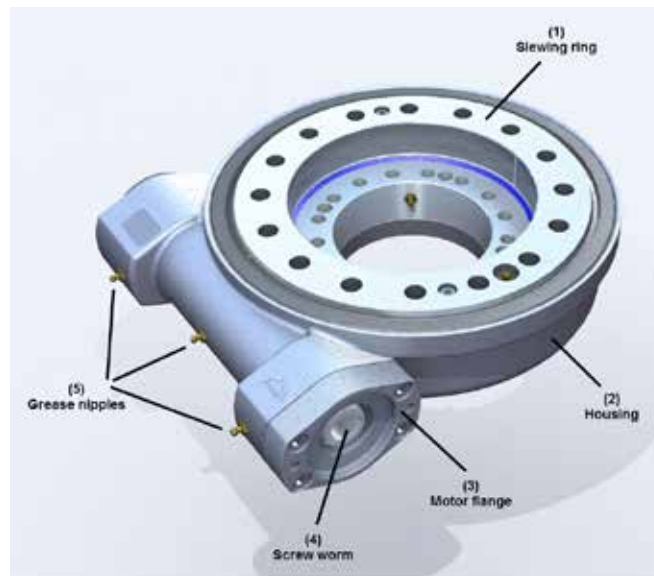


BASIC INSTRUCTIONS

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.

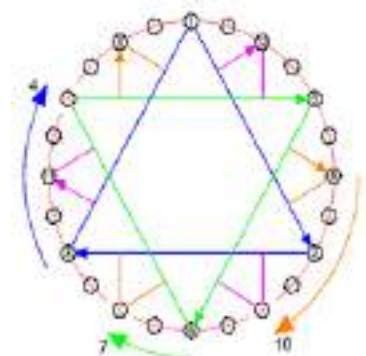
Mounting bolt dimension	Tightening torque (Nm) Quality grade 10.9
M6	15 ± 1
M8	37 ± 3
M10	72 ± 6
M12	126 ± 10
M16	312 ± 25
M20	609 ± 50

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.

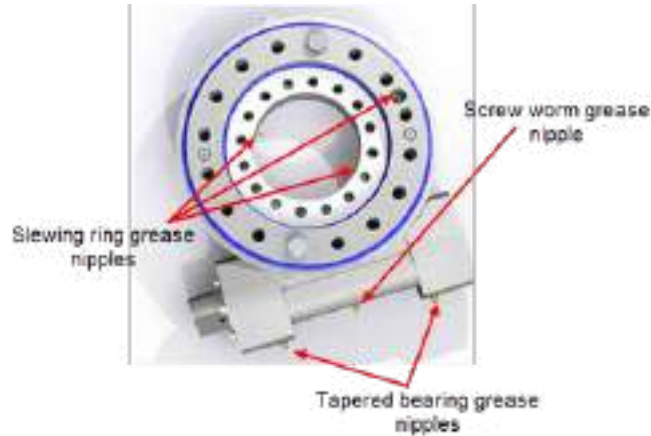
Once the screw is tightened, mark the surface of the screw and the structure surface. It is useful to inspect the bolts tightening



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.

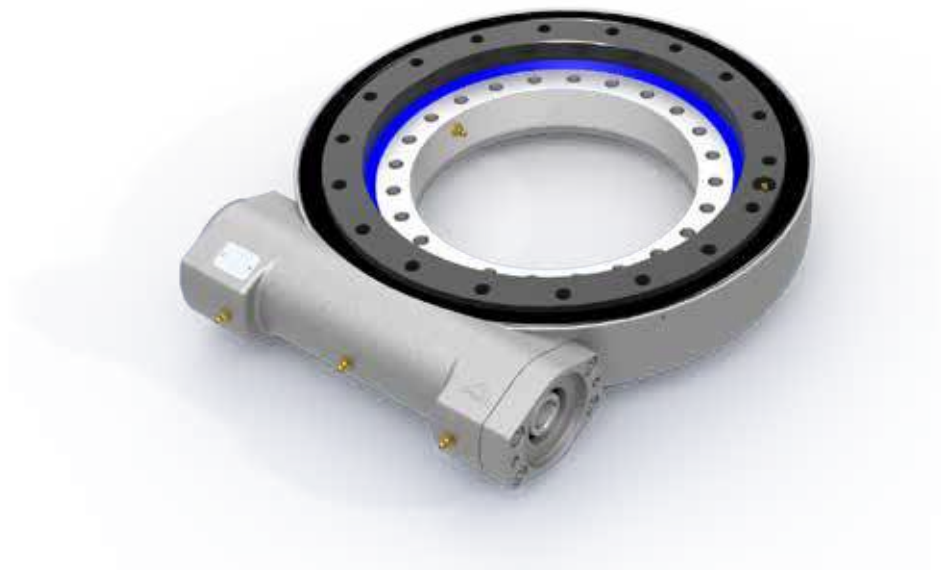
Working conditions	Slewing Ring and Screw Worm Re-lubrication intervals
Rotational speeds <0,5rpm Non extreme environmental conditions (solar trackers)	Every 400 hours of operation or once every 12 months
Rotational speeds >0,5rpm Non extreme environmental conditions (man lift, industrial applications)	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

BE 130-Z1-RM

SHAFT: $\phi 12$ MM KEYS

MAIN PERFORMANCE PARAMETERS

GEAR RATIO	6.2:1	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
		AXIAL DYNAMIC LOAD	8.7KN

LIMITING LOAD DIAGRAM

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

Reference

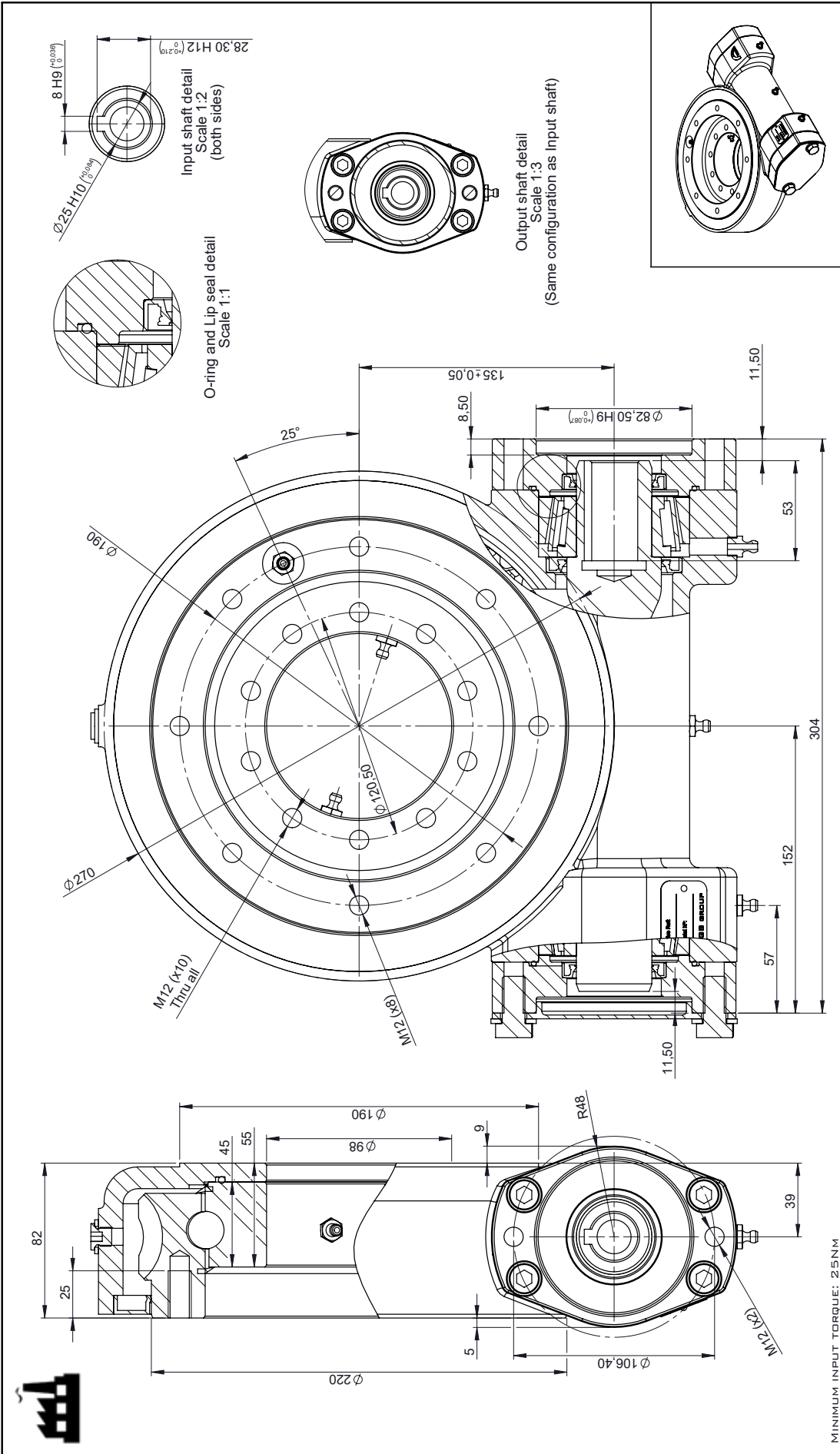
Denomination	Sales Drawing
MATERIAL:	WEIGHT (kg): 10.28
SCALE:	NUM. PIECES: 1
	SIZE: -
	SHEET: 1 of 1

Units: mm

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BE SERIES

METRIC

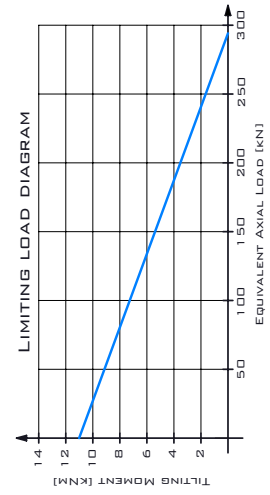


Reference	BE236-Z1
Denomination	Sales Drawing
MATERIAL	WEIGHT (kg): 30.33
SCALE:	1:2 SIZE: A3
NUM. PIECES:	1
SHEET:	1 of 1

Units: mm

SHAFT: $\phi 25$ MM KEYS SHAFT
FLANGE: SAE - 2 BOLT FLANGE

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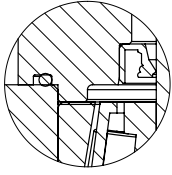
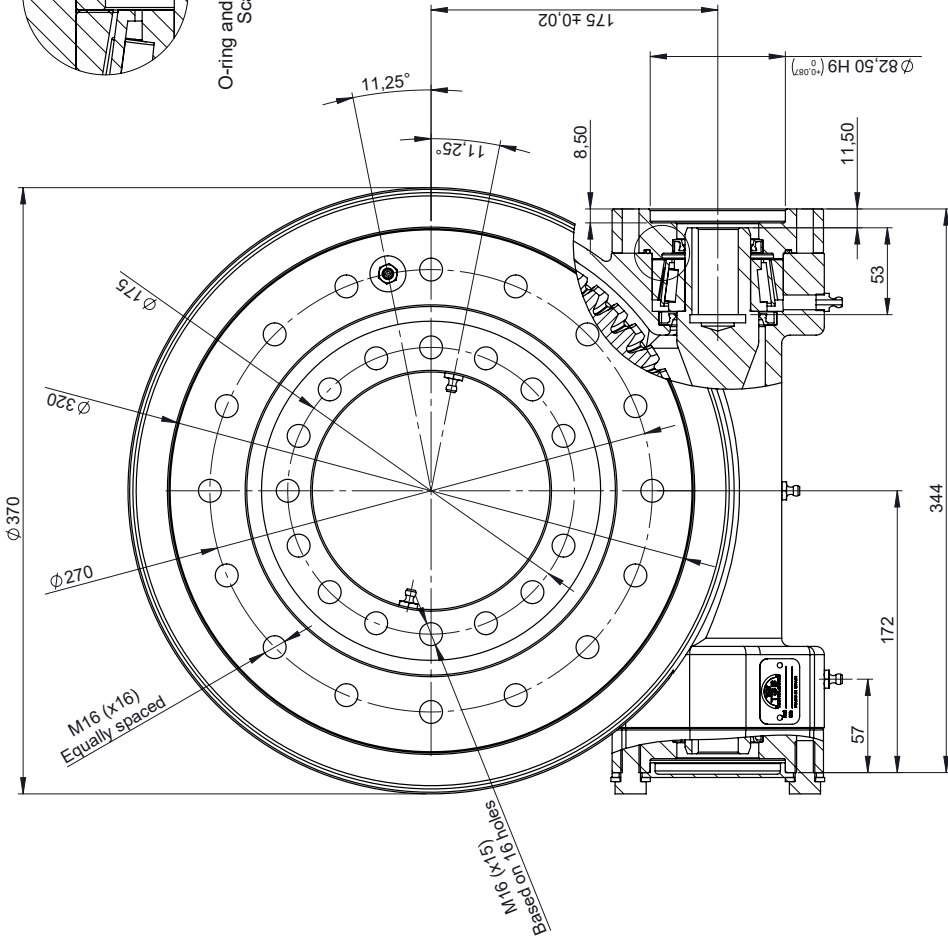
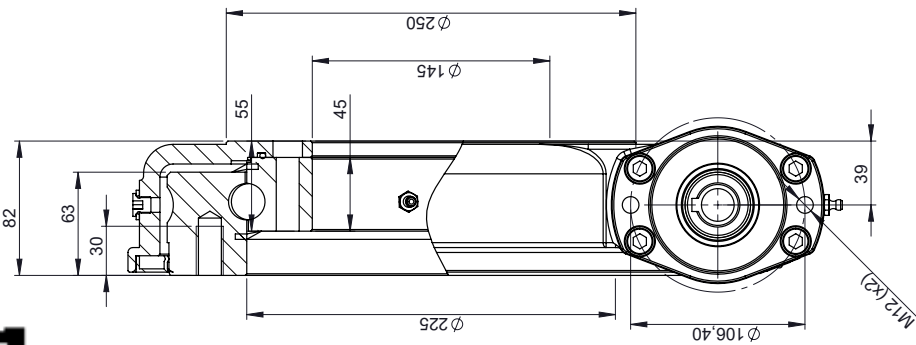


MINIMUM INPUT TORQUE: 25NM

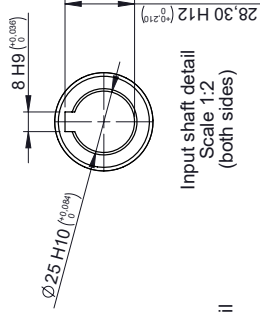
MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	44:1
HOLDING TORQUE	25kNm
EFFICIENCY	40%
TILTING MOMENT	11,2kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	94kN
AXIAL STATIC LOAD	290kN
RADIAL DYNAMIC LOAD	83kN
AXIAL DYNAMIC LOAD	97kN
NOMINAL TORQUE	6.500Nm
MAXIMUM TORQUE	3.380Nm
BACKLASH CLEARANCE	< 0,15°
NOTES:	ALL BEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800RPM. STANDARD PAINT: FOR CORROSION CATEGORY C3-M - COLOR RAL 9005

BE SERIES

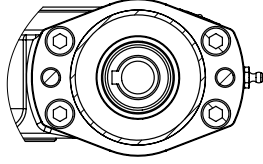
METRIC



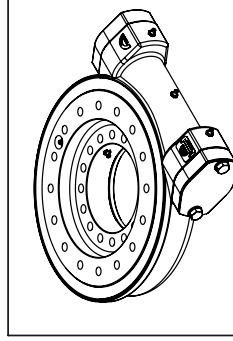
O-ring and Lip seal detail
Scale 1:1



Input shaft detail
Scale 1:2
(both sides)



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

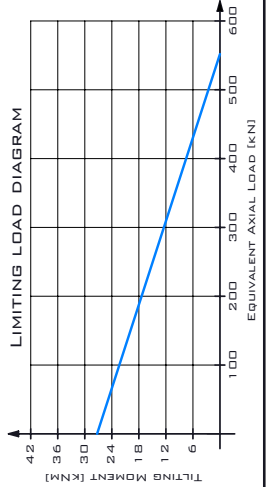


MINIMUM INPUT TORQUE: 25NM

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 _o	AXIAL STATIC LOAD	547KN
MAXIMUM TORQUE	9.100NM	RADIAL DYNAMIC LOAD	132KN
NOMINAL TORQUE	4.480NM	AXIAL DYNAMIC LOAD	154KN

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



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

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>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

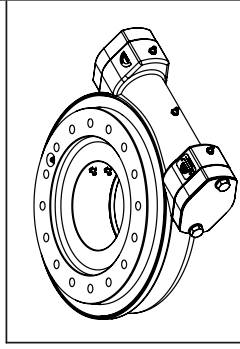
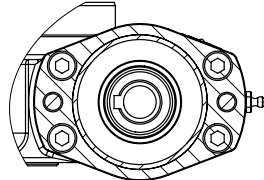
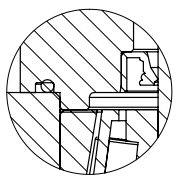
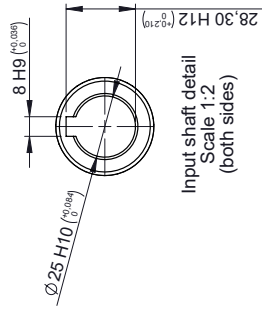
Reference
BE314-Z1

Denomination	Sales drawing	Rev	C
MATERIAL	WEIGHT (kg): 45.68	NUM. PIECES:	1
SCALE:	1:3	SIZE:	A3
		SHEET:	1 of 1

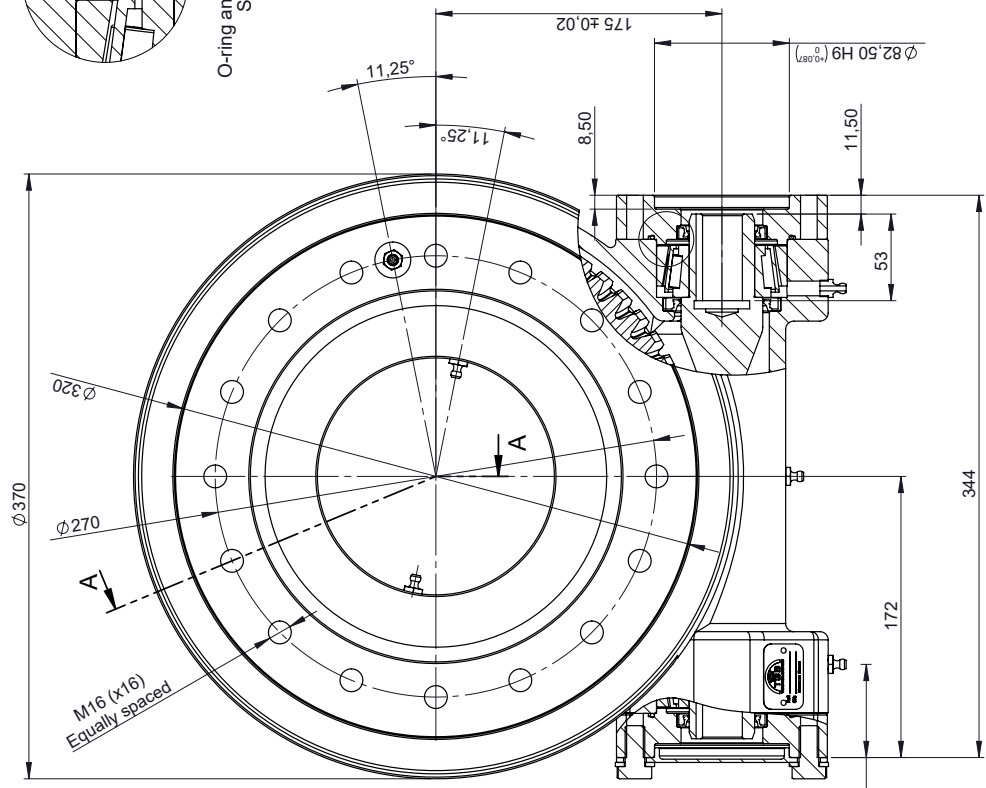


BE SERIES

METRIC



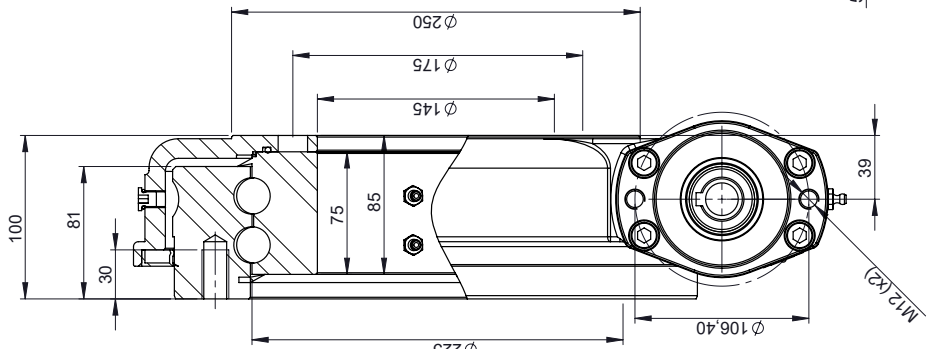
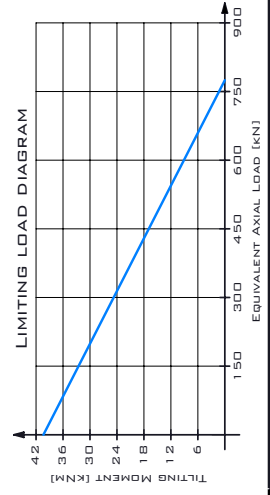
Reference	BE314-2B-Z1
Denomination	Sales drawing
MATERIAL:	WEIGHT [kg]: 55.45
SCALE:	1:3 SIZE: A3
NUM. PIECES:	1
SHEET:	1 of 1



SHAFT: Ø25MM KEYS
FLANGE: SAE - 2BOLT

Units: mm

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MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	61:1
HOLDING TORQUE	34 KNM
EFFICIENCY	40%
TILTING MOMENT	40 KNM
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	297 KN
BACKLASH CLEARANCE	< 0.17°
AXIAL STATIC LOAD	797 KN
MAXIMUM TORQUE	9.100 NM
RADIAL DYNAMIC LOAD	215 KN
AXIAL DYNAMIC LOAD	250 KN

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

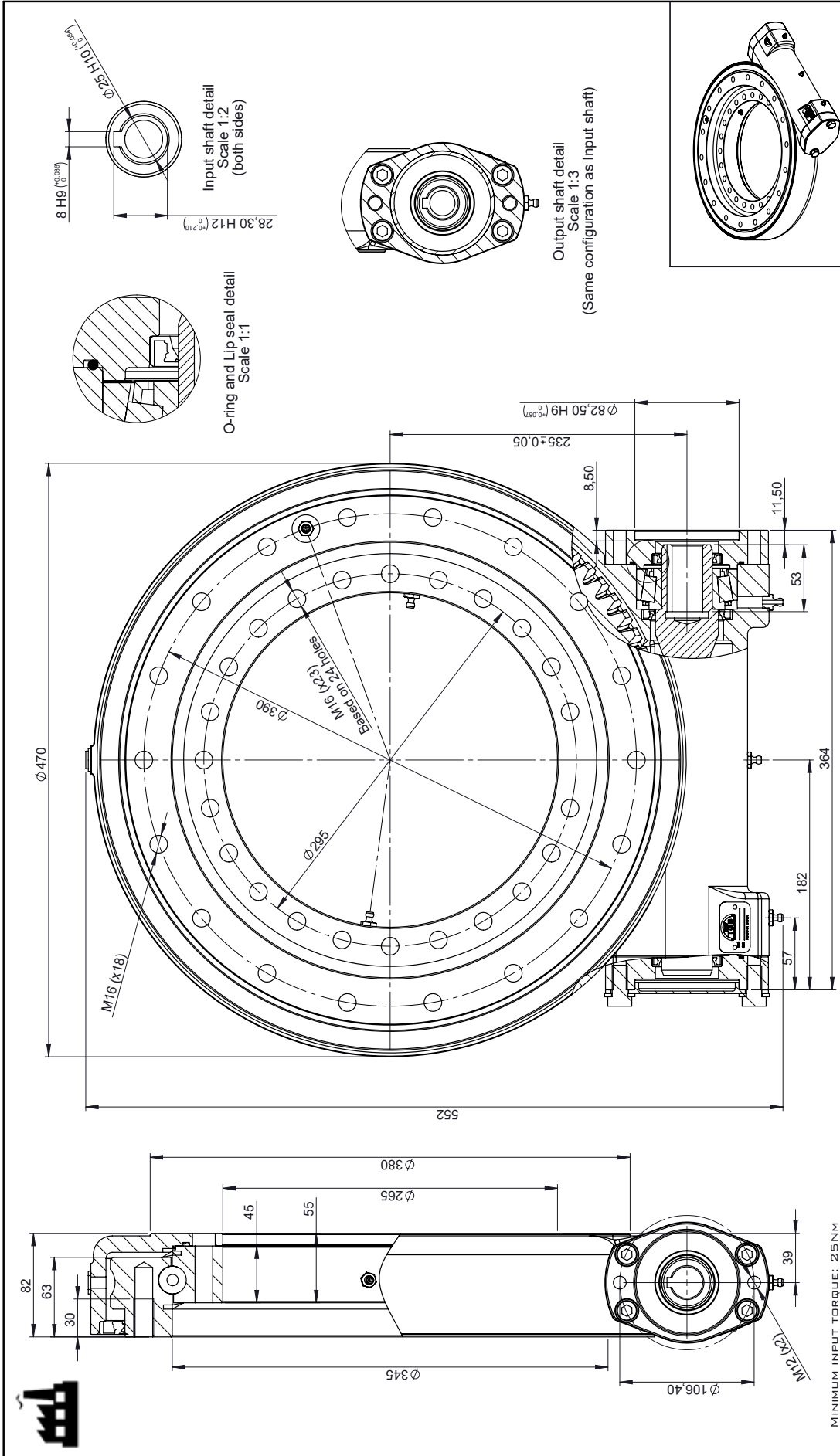
MINIMUM INPUT TORQUE: 25NM

M16 (x14) ± 30mm
Based on 16 holes

SECTION A-A

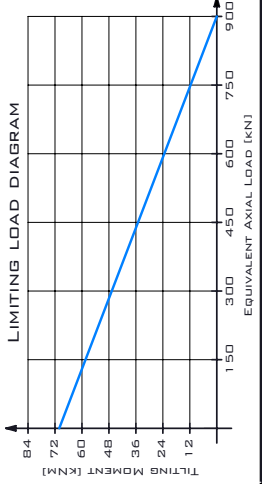
BE SERIES

METRIC



MINIMUM INPUT TORQUE: 25NM

MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	85:1
HOLDING TORQUE	39 kNm
EFFICIENCY	40%
TILTING MOMENT	71.1 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	338kN
AXIAL STATIC LOAD	905kN
RADIAL DYNAMIC LOAD	157kN
AXIAL DYNAMIC LOAD	183kN
NOMINAL TORQUE	10,200Nm
MAXIMUM TORQUE	12,300Nm
BACKLASH CLEARANCE	< 0,17°
MAXIMUM OUTPUT SPEED	1800 RPM
STANDARD PAINT	FOR CORROSION CATEGORY C3-M - COLOR RAL 9005



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

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Reference: **BE435-Z1**

Denomination: Sales Drawing

MATERIAL: -

SCALE: 1:3

Weight [kg]: 61.73

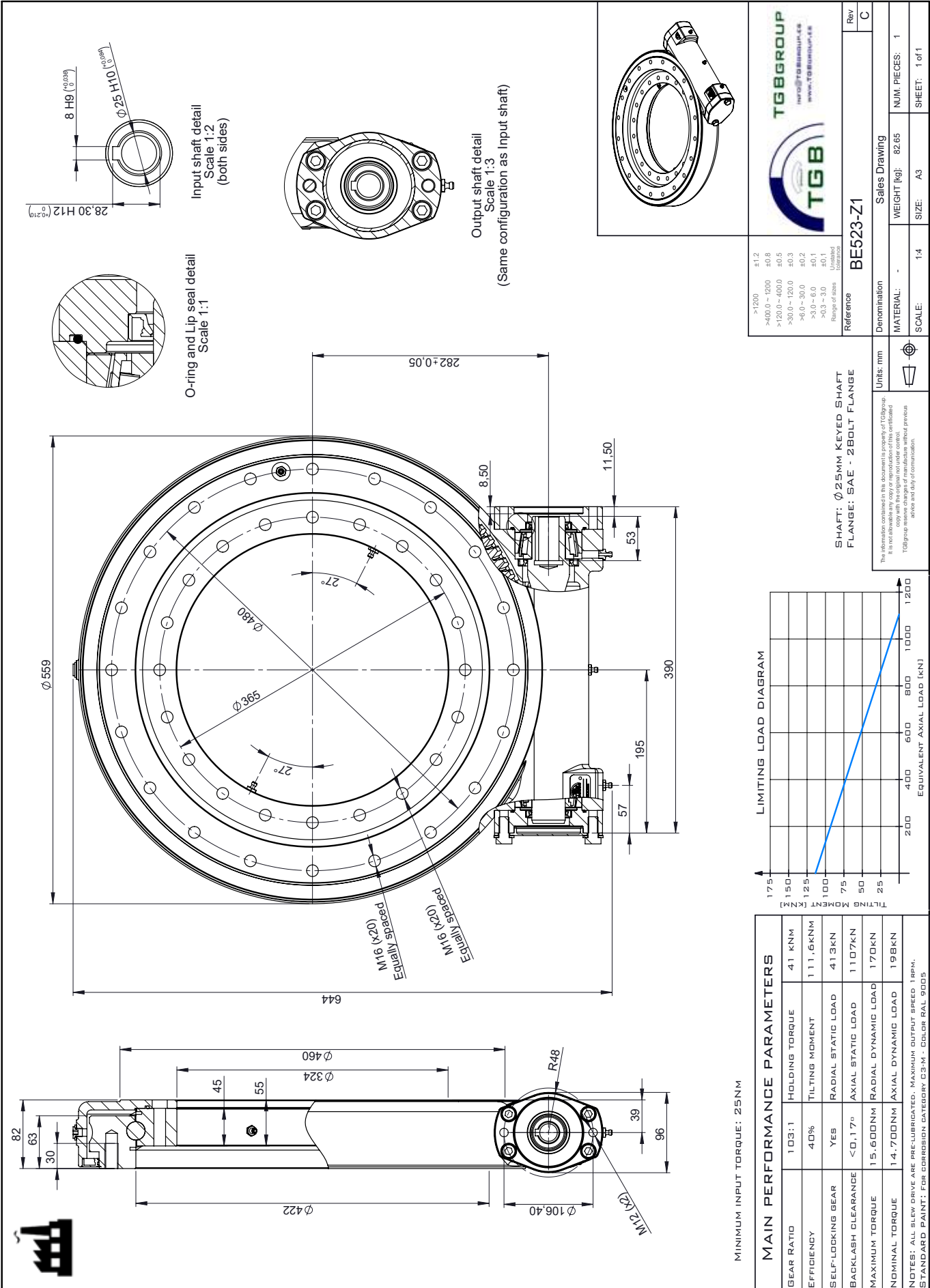
Size: A3

NUM. PIECES: 1

SHEET: 1 of 1

BE SERIES

METRIC



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Reference: **BE523-Z1**

Denomination: Sales Drawing

MATERIAL: - WEIGHT [kg]: 82.65

SCALE: 1:4 SIZE: A3

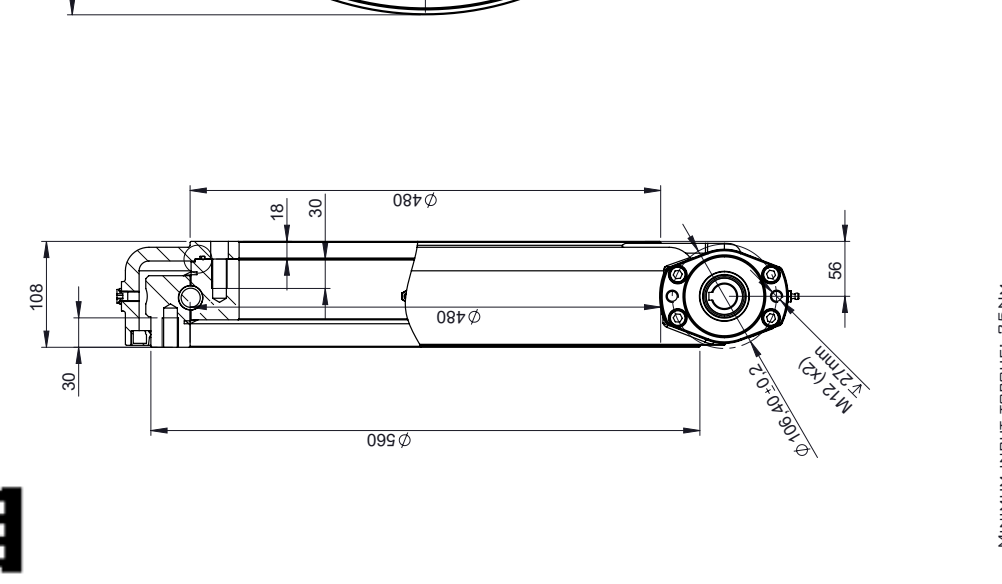
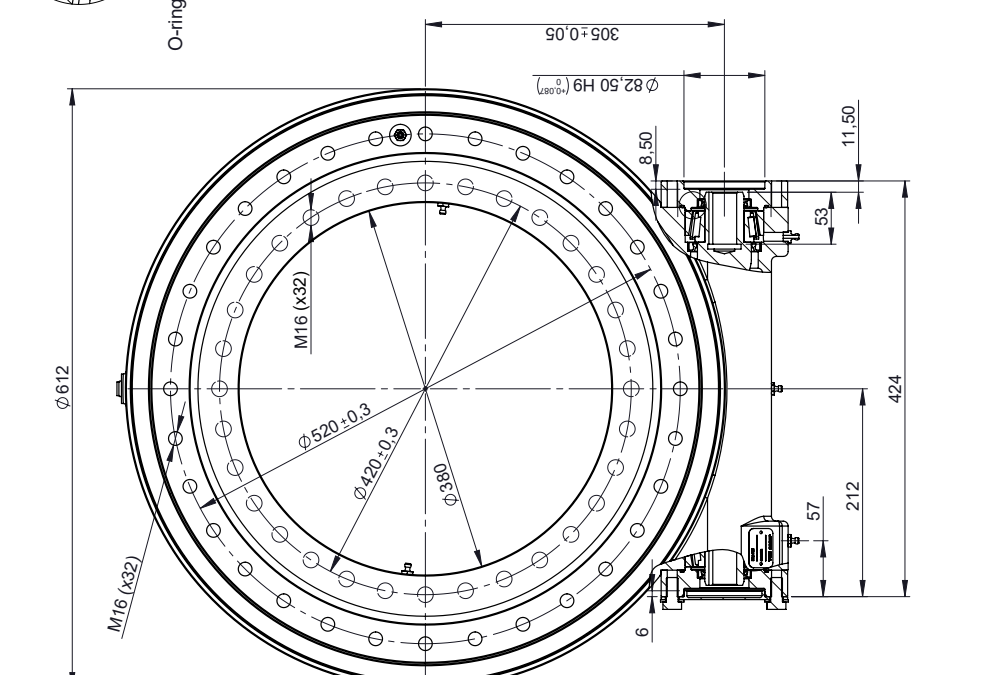
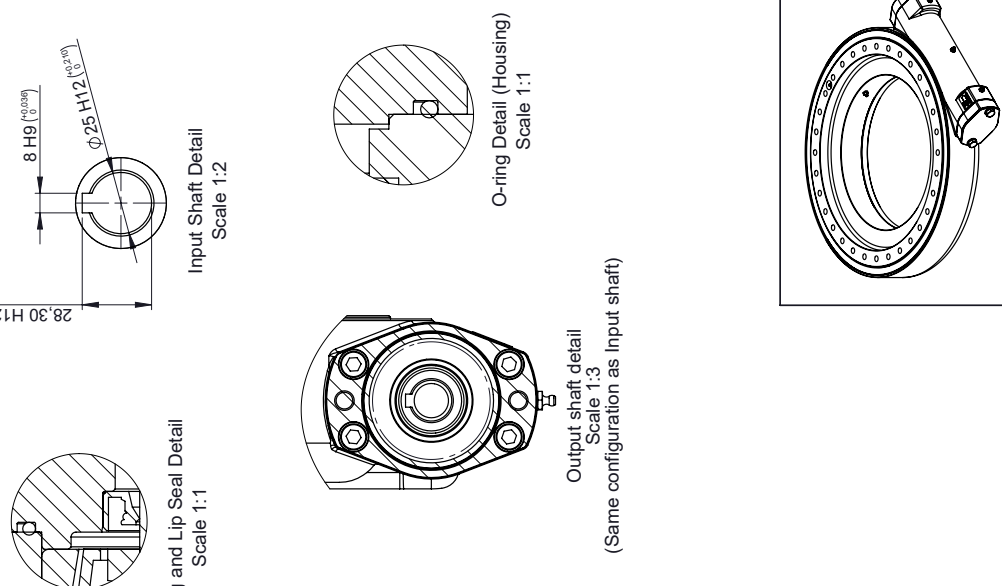
NUM. PIECES: 1

SHEET: 1 of 1

Rev: C

BE SERIES

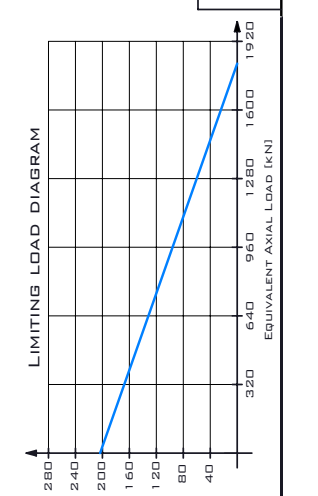
METRIC



Reference BE600-Z1	
Denomination Sales Drawing	RvB D
MATERIAL: -	WEIGHT [kg]: 109.55
SCALE: 1:5	SIZE: A3
NUM. PIECES: 1	
SHEET: 1 of 1	

SHAFT: $\varnothing 25\text{MM}$ KEYED SHAFT
FLANGE: SAE - 2BOLT FLANGE

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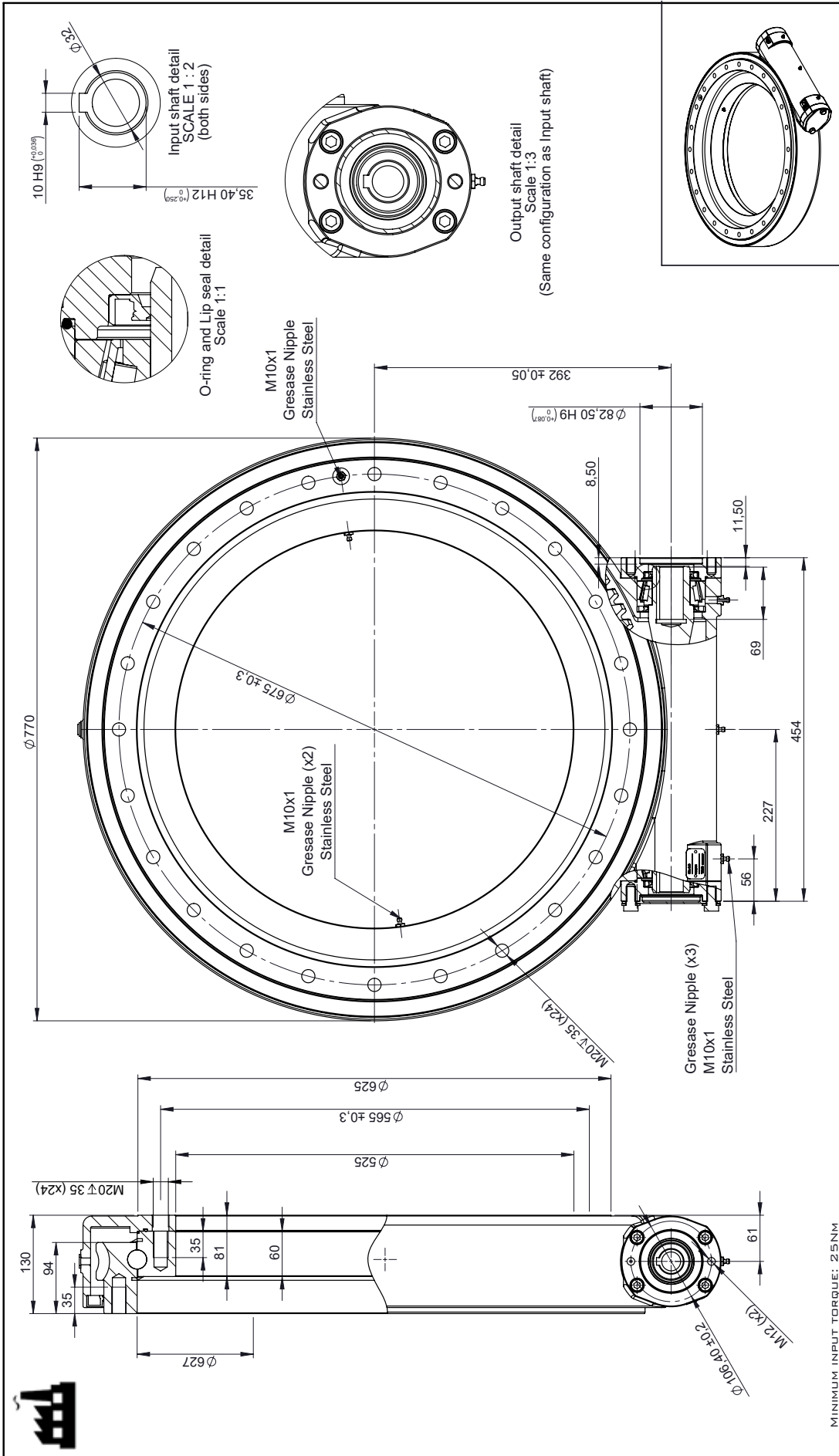
MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	92:1
HOLDING TORQUE	*35.5kNm
EFFICIENCY	40%
TILTING MOMENT	203.4kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	675kN
AXIAL STATIC LOAD	1.808kN
BACKLASH CLEARANCE	<0.17°
RADIAL DYNAMIC LOAD	30.000kN
AXIAL DYNAMIC LOAD	25.000kN
MAXIMUM TORQUE	30.000kN
NOMINAL TORQUE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

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

MINIMUM INPUT TORQUE: 25NM

BE SERIES

METRIC



TGB GROUP
www.TGBGROUP.COM

Reference: **BE700-Z1**

Denomination: Sales Drawing

MATERIAL: -

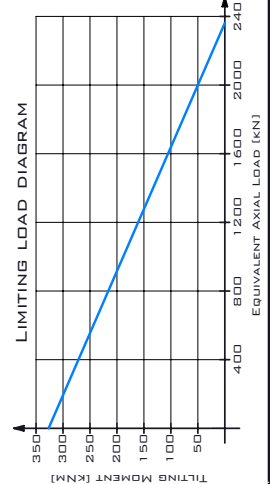
SCALE: 1:5

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>120.0 - 400.0	±0.5	>120.0 - 400.0	±0.5
>30.0 - 120.0	±0.3	>30.0 - 120.0	±0.3
>6.0 - 30.0	±0.2	>6.0 - 30.0	±0.2
>3.0 - 6.0	±0.1	>3.0 - 6.0	±0.1
>0.3 - 3.0	±0.1	>0.3 - 3.0	±0.1
Range of sizes Unlimited			

NUM. PIECES: 1	WEIGHT [kg]: 173.33	Rev: B
SIZE: A3	SCALE: 1:5	SHEET: 1 of 1

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

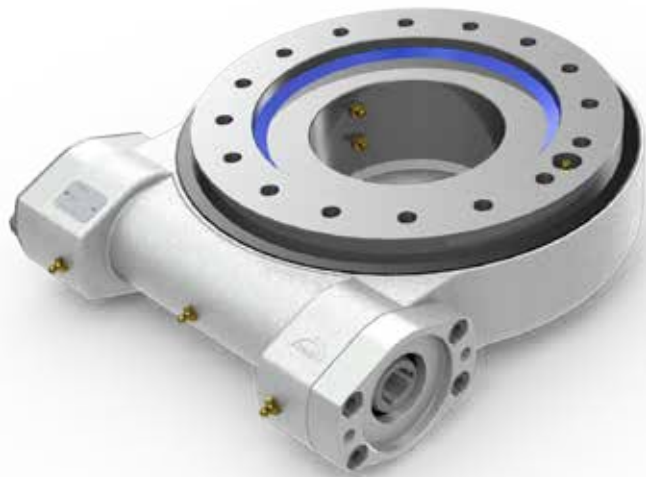
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MAIN PERFORMANCE PARAMETERS			
GEAR RATIO	1.02:1	HOLDING TORQUE	42.8kNm
EFFICIENCY	40%	TILTING MOMENT	325kNm
SELF-LOCKING GEAR	YES	RADIAL STATIC LOAD	883kN
BACKLASH CLEARANCE	< 0,17°	AXIAL STATIC LOAD	236.4kN
MAXIMUM TORQUE	42.824Nm	RADIAL DYNAMIC LOAD	280kN
NOMINAL TORQUE	42.824Nm	AXIAL DYNAMIC LOAD	327kN

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

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

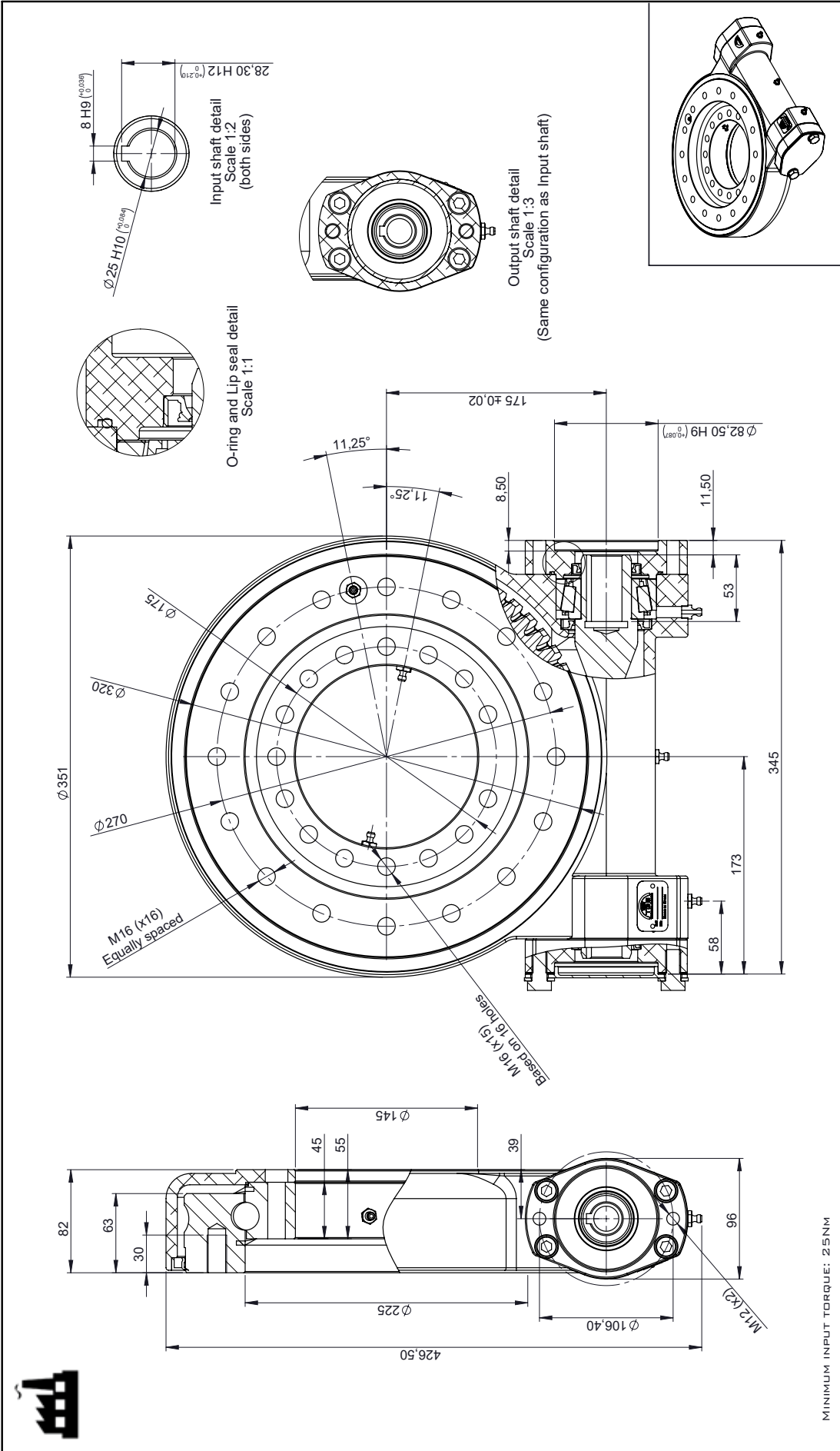
- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Aluminum Housing
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Robotics, Aerial platforms, etc.

LBE SERIES

METRIC



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

Units: mm	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
Unfinished	Unfinished

Denomination	NUM. PIECES:
Sales drawing	1

MATERIAL:	WEIGHT [kg]:
	34.82

SCALE:	SIZE:
1:3	A3

Rev	D

LIMITING LOAD DIAGRAM

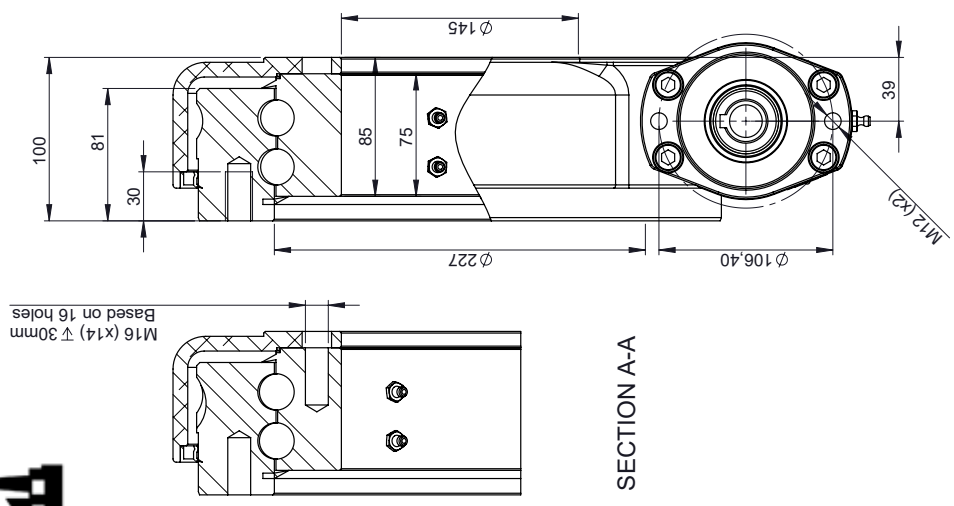
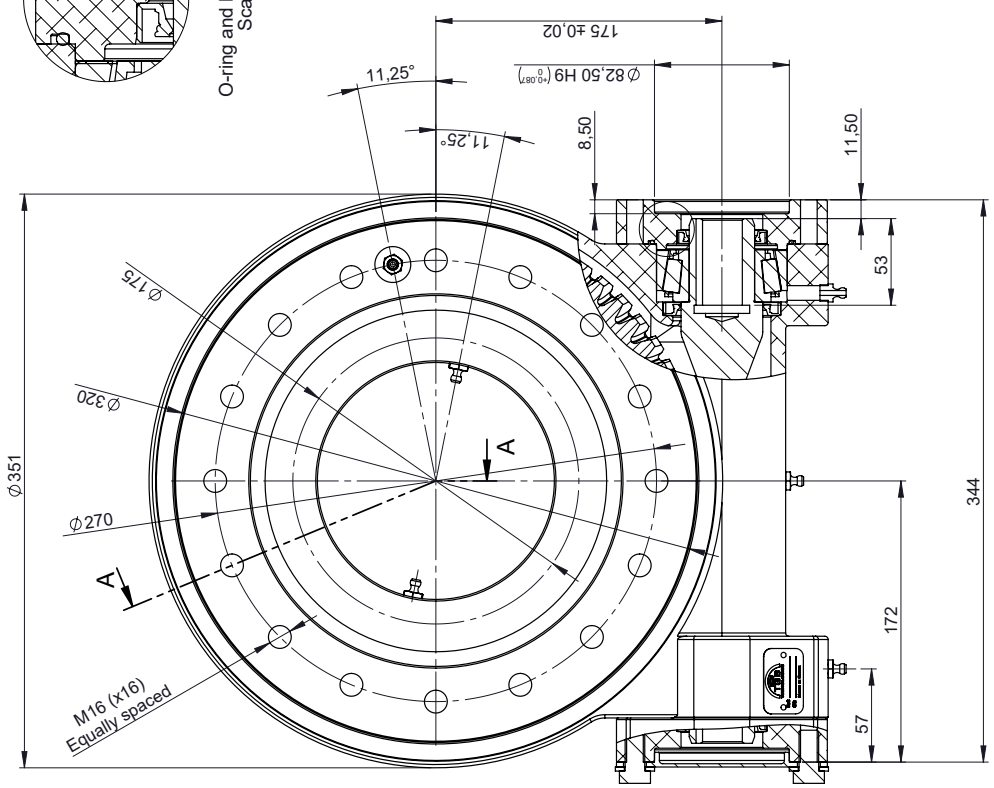
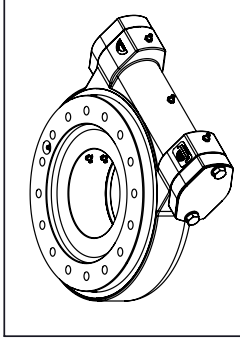
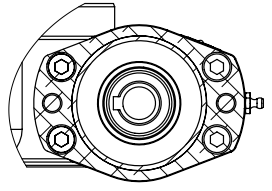
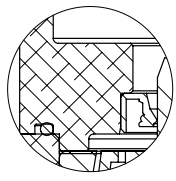
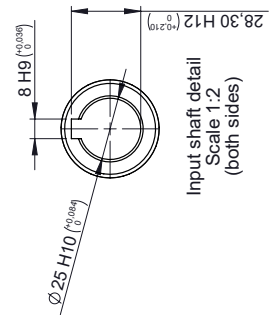
SHAFT: Ø25MM KEYS SAE - 2BOLT FLANGE

FLANGE: SAE - 2BOLT FLANGE

The dimensions shown in this document are for reference only. TGB Group is not responsible for the accuracy of the dimensions shown in this document. TGB Group reserves the right to change the dimensions without previous notice.

LBE SERIES

METRIC



TGB GROUP
www.TGBGROUP.COM

Reference: **LBE314-2B-Z1**

Denomination: Sales drawing

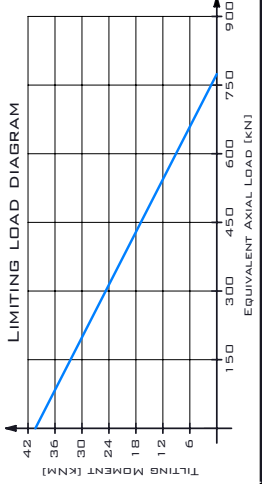
MATERIAL: -

SCALE: 1:3

Weight	44.71
NUM. PIECES	1
SIZE	A3
SHEET	1 of 1

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

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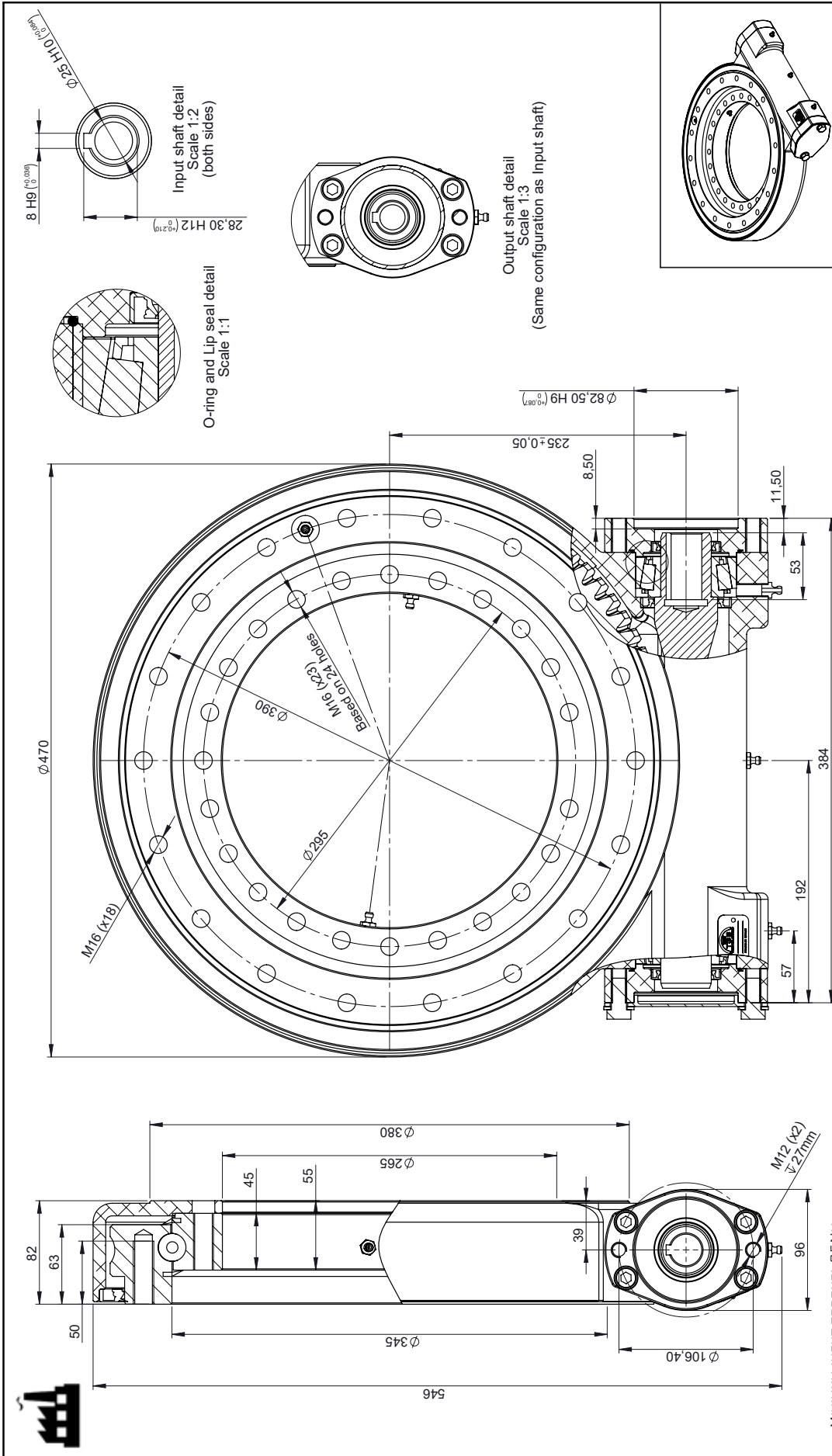
MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	6:1:1
HOLDING TORQUE	28 kNm
EFFICIENCY	40%
TILTING MOMENT	40.5 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	297 kN
BACKLASH CLEARANCE	< 0,17°
AXIAL STATIC LOAD	797 kN
MAXIMUM TORQUE	9.100 Nm
RADIAL DYNAMIC LOAD	21.5 kN
AXIAL DYNAMIC LOAD	250 kN

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

MINIMUM INPUT TORQUE: 25NM

LBE SERIES

METRIC



TGB GROUP
usa@tgbgroup.com
www.tgbgroup.com

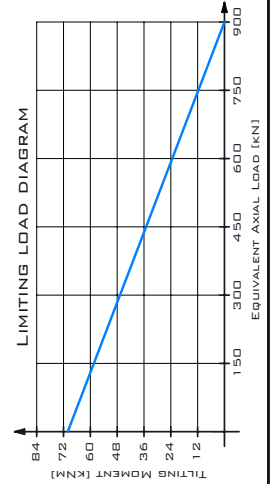
TGB

Reference: **LBE435-Z1**

Denomination	Sales Drawing
MATERIAL: -	WEIGHT (kg): 47.81
SCALE: 1:3	SIZE: A3
NUM. PIECES: 1	SHEET: 1 of 1

SHAFTE: $\phi 25\text{MM}$ KEYS SHAFTE
FLANGE: SAE - 2BOLT FLANGE

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MINIMUM INPUT TORQUE: 25NM

MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	85:1
HOLDING TORQUE	33.5 kNm
EFFICIENCY	40%
TILTING MOMENT	71.1 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	398kN
BACKLASH CLEARANCE	< 0.17°
AXIAL STATIC LOAD	905kN
MAXIMUM TORQUE	12,300Nm
RADIAL DYNAMIC LOAD	157kN
NOMINAL TORQUE	10,200Nm
AXIAL DYNAMIC LOAD	183kN

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

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

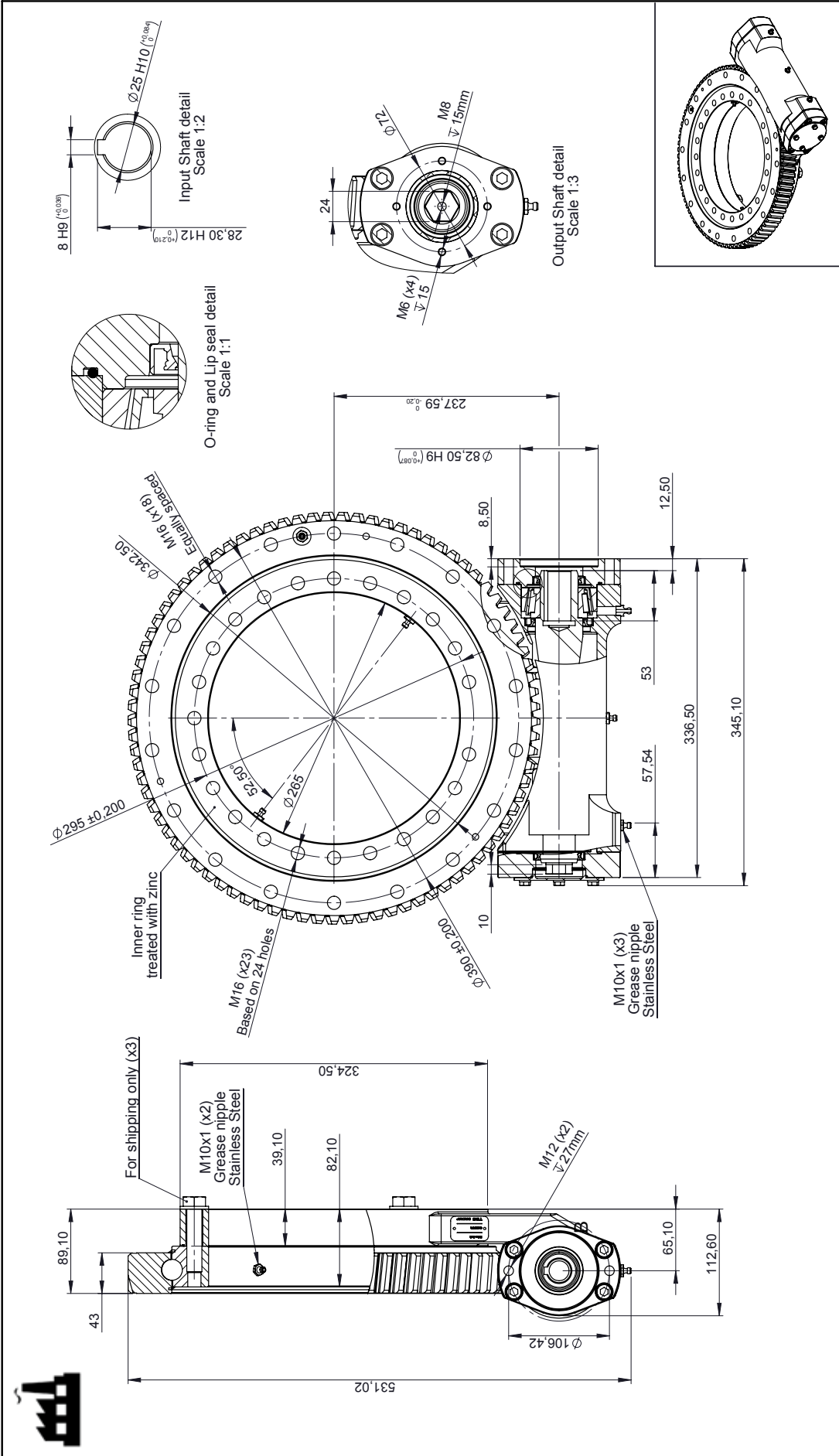
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Vacuum trucks, cranes, etc.

TGO SERIES

METRIC



TGB GROUP
INDUSTRIAL GEAR
WITH TECHNOLOGY

Reference: **TGO435-Z0-RM**

Denomination: Sales Drawing

MATERIAL: -

SCALE: -

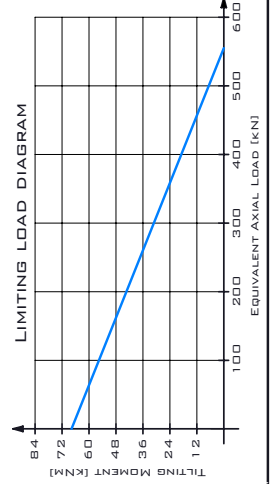
>1200	±1.2				
>400.0 - 1200	±0.8				
>120.0 - 400.0	±0.5				
>30.0 - 120.0	±0.3				
>6.0 - 30.0	±0.2				
>3.0 - 6.0	±0.1				
>0.3 - 3.0	±0.1				
Unrated tolerances					

Rev	A
WEIGHT [kg]:	49.17
NUM. PIECES:	1
SIZE:	-
SCALE:	-

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

Units: mm

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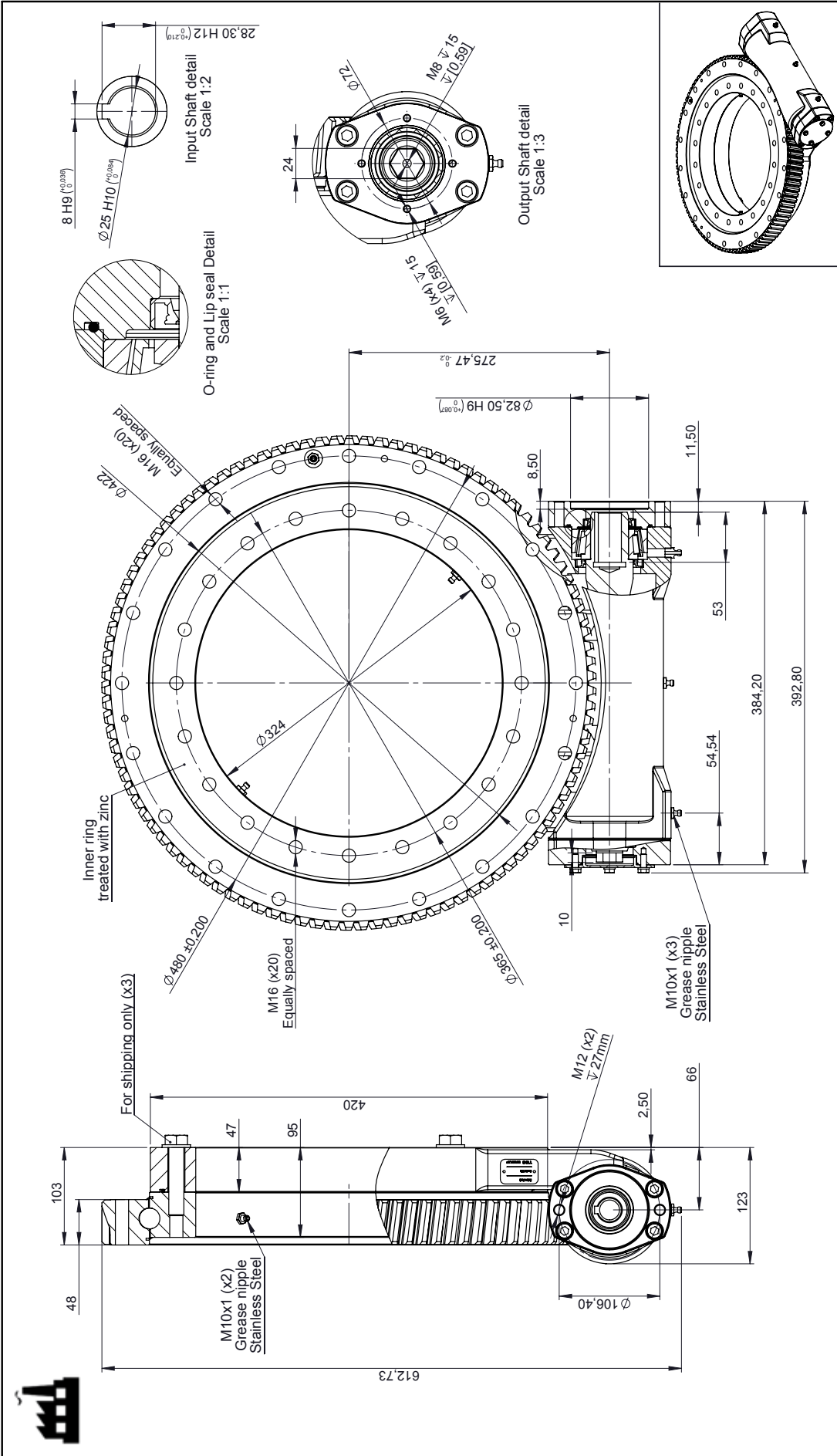


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	85:1
HOLDING TORQUE	43.2kNm
EFFICIENCY	40%
TILTING MOMENT	67.6kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	222kN
BACKLASH CLEARANCE	<0.17°
AXIAL STATIC LOAD	55.5kN
MAXIMUM TORQUE	12.306Nm
RADIAL DYNAMIC LOAD	117kN
NOMINAL TORQUE	10.200Nm
AXIAL DYNAMIC LOAD	133kN

NOTES: ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED: 1100 RPM.

TGO SERIES

METRIC



TGB GROUP
TGO523-Z0-RM

Reference: TGO523-Z0-RM

Denomination: Sales Drawing

MATERIAL: WEIGHT [kg]: 78.63

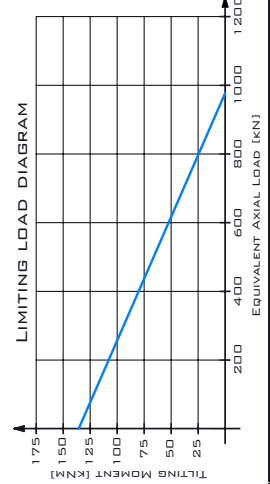
SCALE: NUM. PIECES: 1

Rev: A SHEET: 1 of 1

Units: mm

SHAFT: $\phi 25mm$ KEYED SHAFT
FLANGE: SAE - 2BOLT FLANGE

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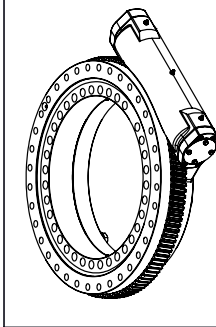
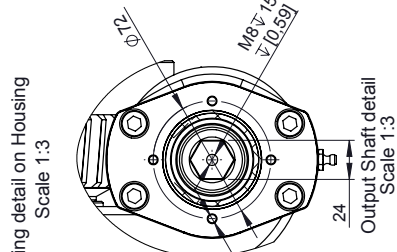
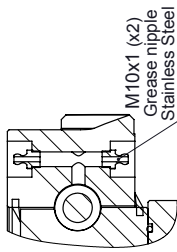
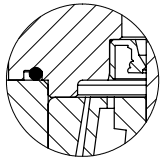
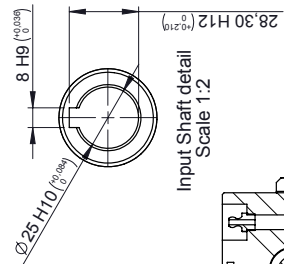


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	102:1
HOLDING TORQUE	65,1 kNm
EFFICIENCY	40%
TILTING MOMENT	135,6 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	391 kN
AXIAL STATIC LOAD	977 kN
BADKLASH CLEARANCE	< 0,15°
RADIAL DYNAMIC LOAD	205 kN
AXIAL DYNAMIC LOAD	235 kN
MAXIMUM TORQUE	18,034 Nm
NOMINAL TORQUE	15,096 Nm

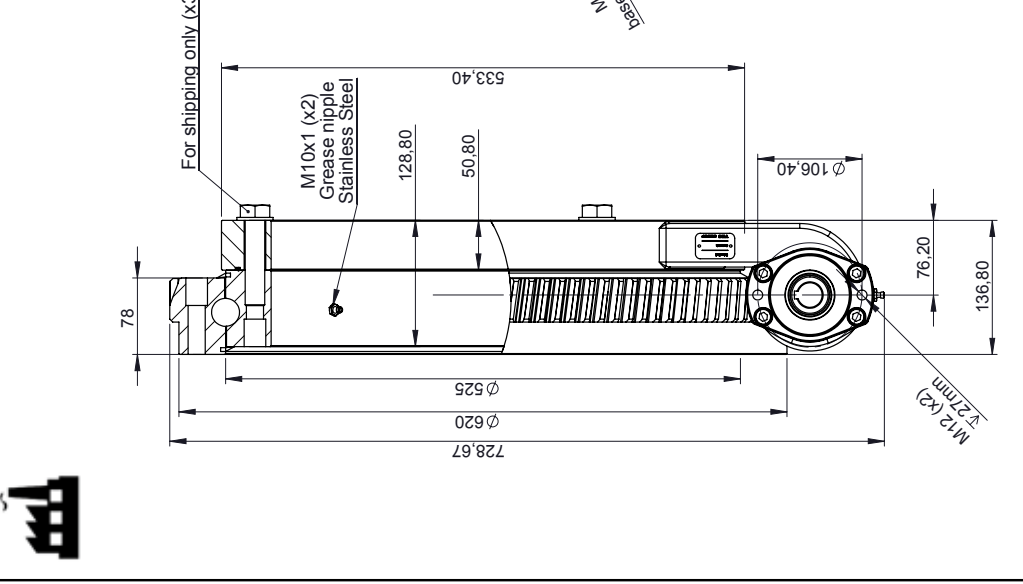
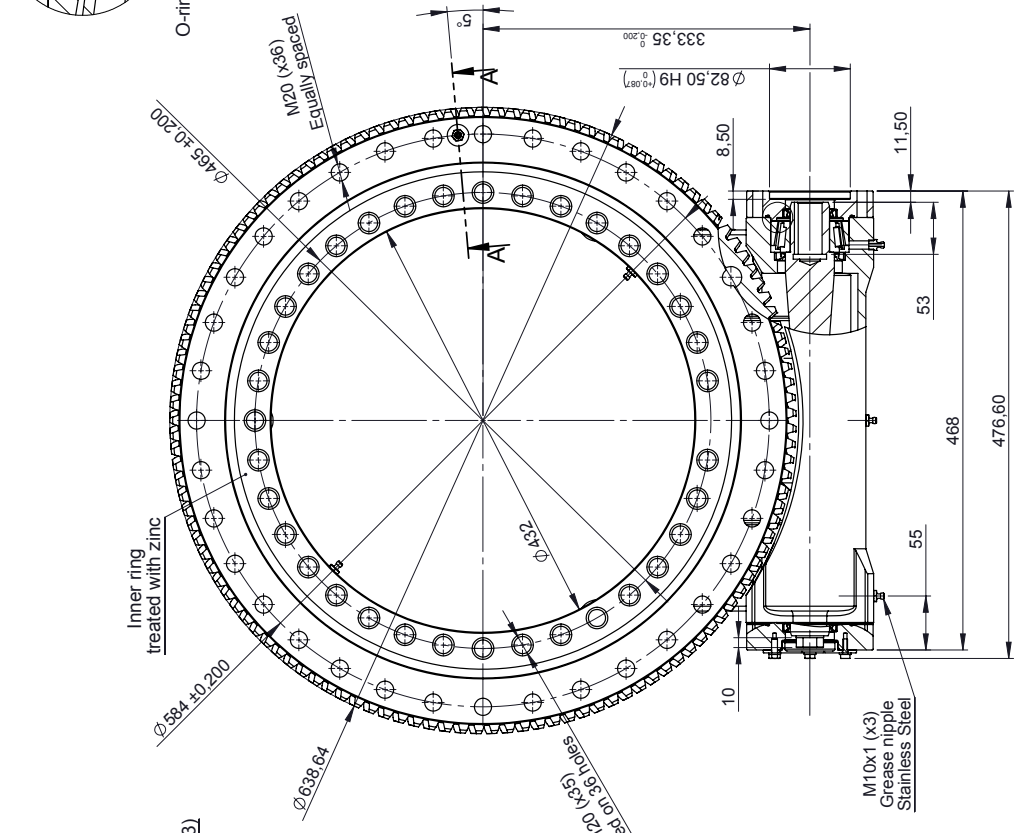
NOTES: ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1000 RPM.

TGO SERIES

METRIC



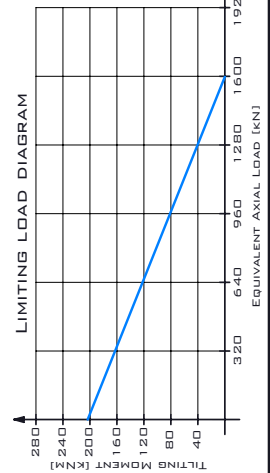
Reference	TGO639-Z0-RM
Denomination	Sales Drawing
MATERIAL:	WEIGHT [kg]: 129.69
SCALE:	NUM. PIECES: 1
	SIZE:
	SHEET: 1 of 1
Rev	A



SHAFT: $\phi 25$ MM KEYS SHAF
 FLANGE: SAE - 2BOLT FLANGE

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Units: mm



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	64kN
AXIAL STATIC LOAD	1.598kN
BACKLASH CLEARANCE	< 0,1 5°
RADIAL DYNAMIC LOAD	396kN
AXIAL DYNAMIC LOAD	384kN
NOMINAL TORQUE	23.500Nm
MAXIMUM TORQUE	30.500Nm

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



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

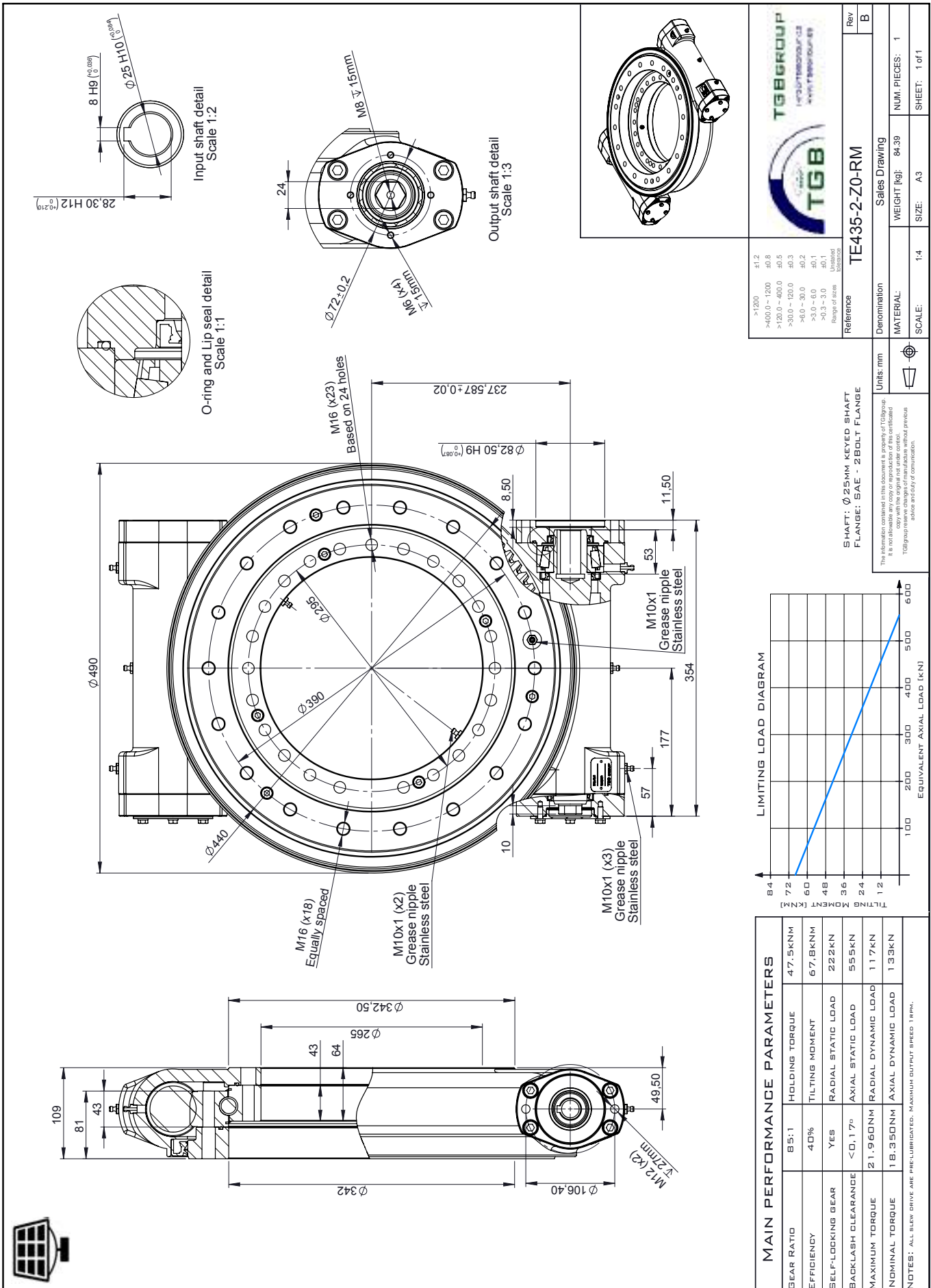
- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Cranes, Forklifts, etc.

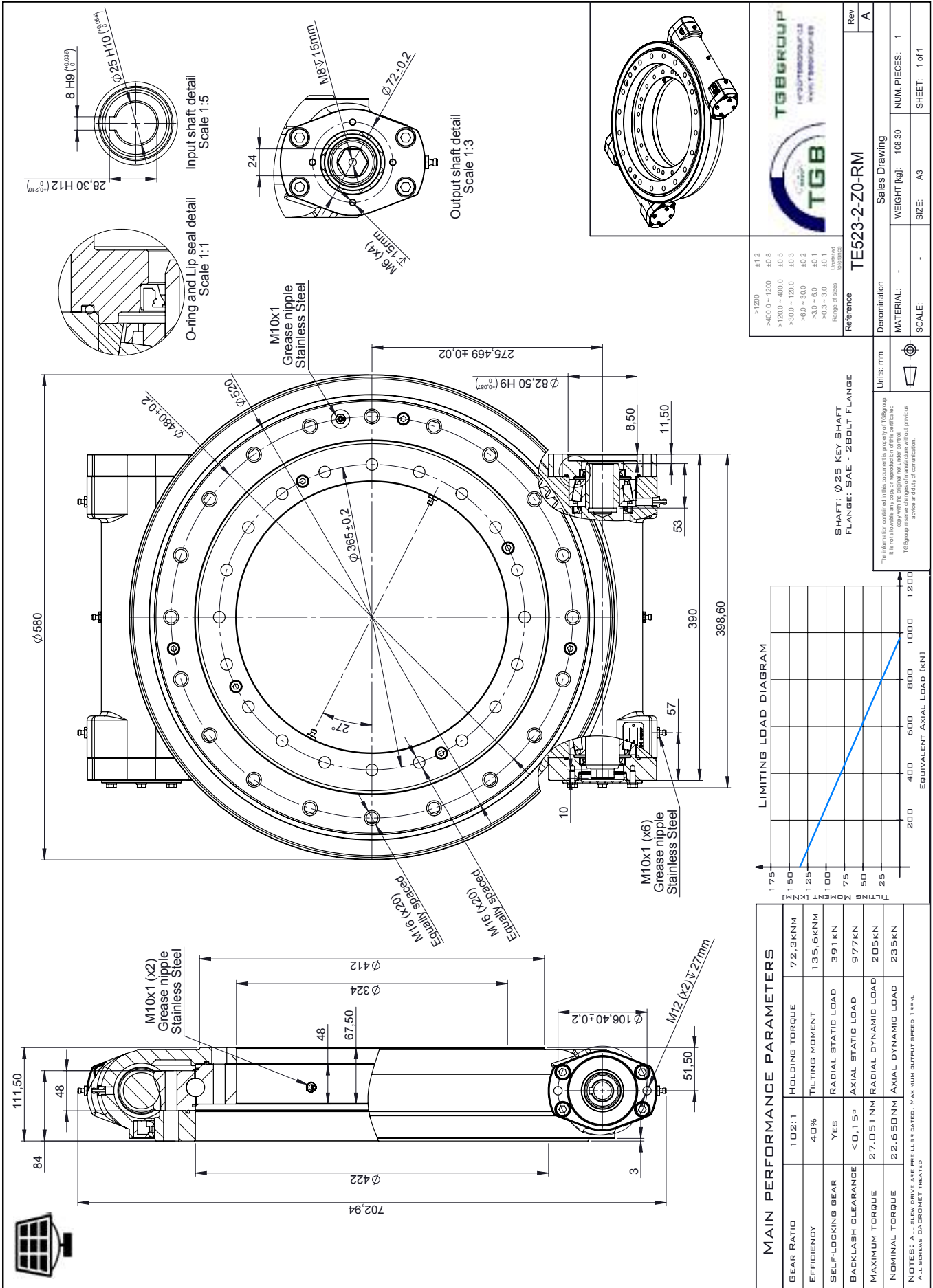
DOUBLE WORM SERIES

METRIC



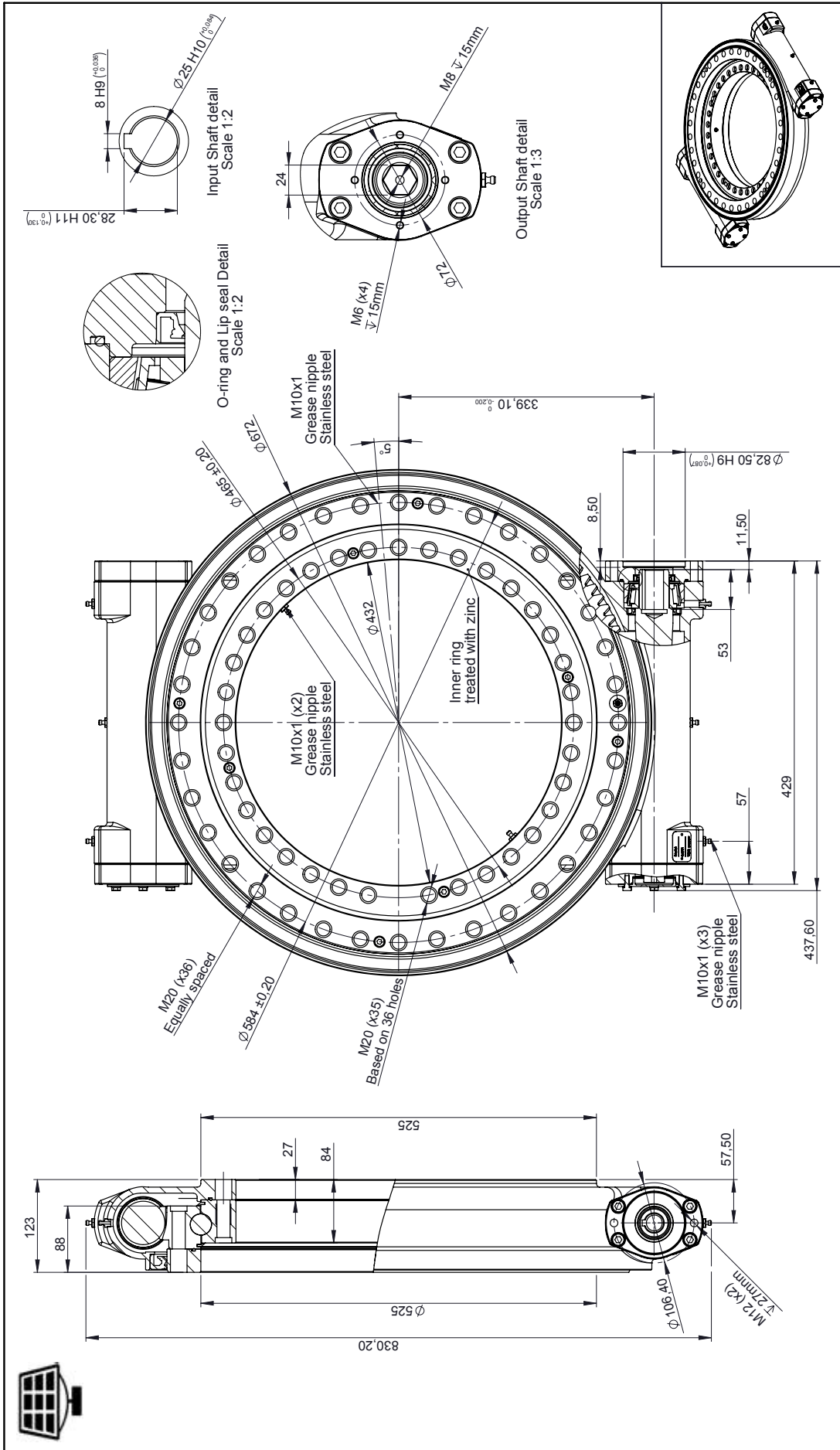
DOUBLE WORM SERIES

METRIC



DOUBLE WORM SERIES

METRIC

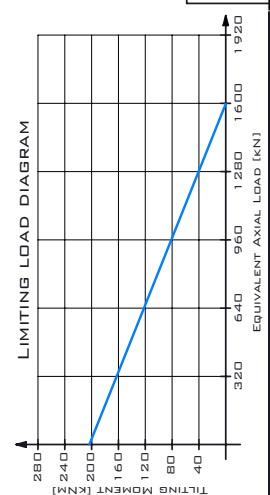


Reference	TE639-2-Z0-RM
Denomination	Sales Drawing
MATERIAL:	WEIGHT [kg]: 134.08
SCALE:	1:5
NUM. PIECES:	1
SHEET:	1 of 1

Units: mm

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

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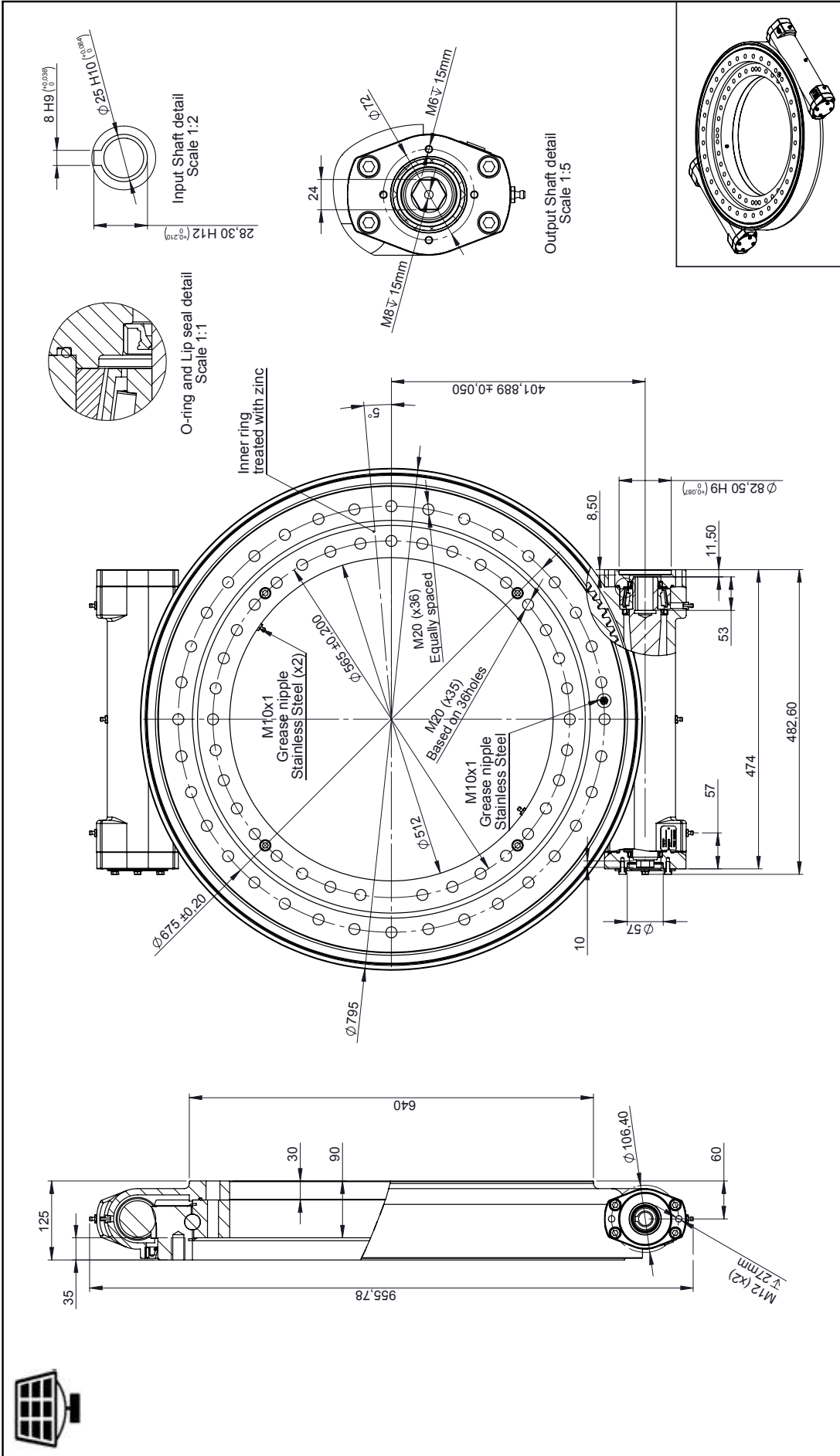


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	1.25:1
HOLDING TORQUE	105.7 kNm
EFFICIENCY	40%
TILTING MOMENT	203.4 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	640 kN
AXIAL STATIC LOAD	1.598 kN
BACKLASH CLEARANCE	< 0.15°
RADIAL DYNAMIC LOAD	3.56 kN
AXIAL DYNAMIC LOAD	38.4 kN
MAXIMUM TORQUE	54.900 Nm
NOMINAL TORQUE	42.100 Nm

NOTES: ALL BEW DRIVE ARE PRELUBRICATED. MAXIMUM OUTPUT SPEED: 1800 RPM.

DOUBLE WORM SERIES

METRIC

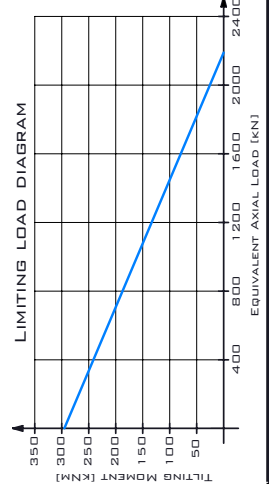


Reference	TE760-2-Z0-RM
Denomination	Sales Drawing
MATERIAL:	WEIGHT [kg]: 208.89
SCALE:	SIZE:
NUM. PIECES: 1	Rev A
SHEET: 1 of 1	

Units: mm

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

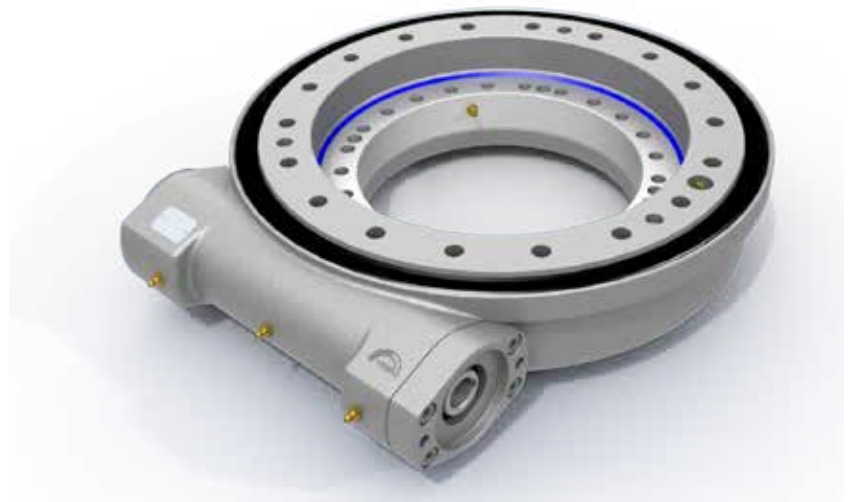
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MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	150:1
HOLDING TORQUE	193.2kNm
EFFICIENCY	40%
TILTING MOMENT	300 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	832kN
BACKLASH CLEARANCE	< 0.15°
RADIAL DYNAMIC LOAD	2190 kN
MAXIMUM TORQUE	67500Nm
AXIAL STATIC LOAD	411 kN
NOMINAL TORQUE	52740Nm
AXIAL DYNAMIC LOAD	517kN

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

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

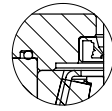
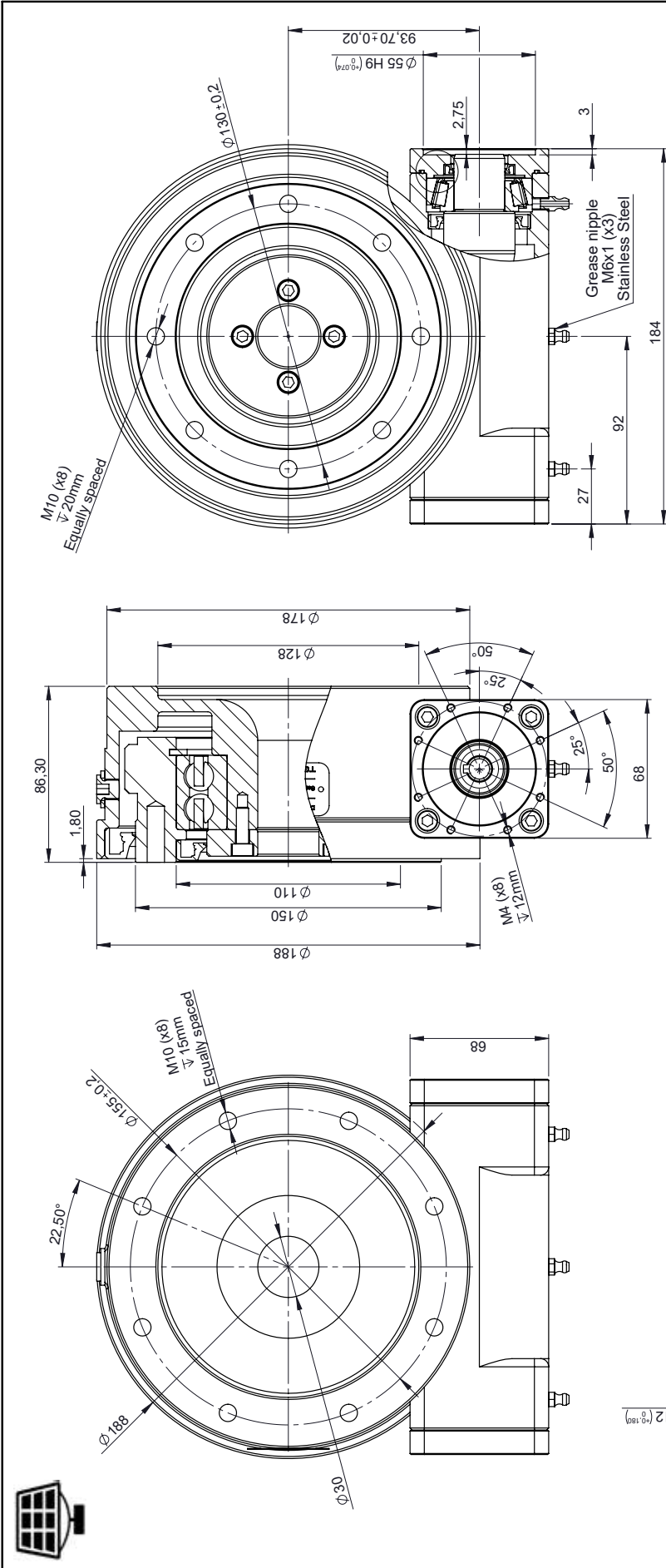
- HNBR Lip seal - resistant to UV light
- Ingress protection: IP 65
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

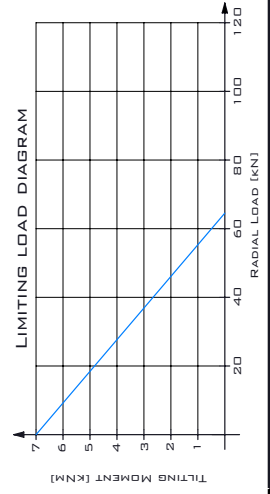
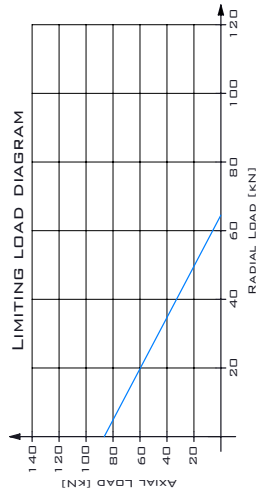
- Solar trackers

TE SERIES

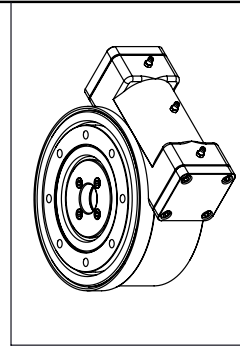
METRIC



O-ring and Lip seal detail
Scale 1:1



MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	6.2:1
HOLDING TORQUE	5KNM
EFFICIENCY	90%
TILTING MOMENT	7.1KNM
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	64KN
AXIAL STATIC LOAD	84KN
RADIAL DYNAMIC LOAD	75KN
AXIAL DYNAMIC LOAD	98KN
NOMINAL TORQUE	1.200NM
MAXIMUM TORQUE	6000NM
NOTES:	ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800M. ALL BEVBE DACTRONET TREATED







TGB GROUP

 www.TGBGROUP.COM

Reference TE160-Z1-RM

Denomination Sales Drawing

Weight [kg]: 14.00

NUM. PIECES: 1

SCALE: -

SHEET: 1 of 1

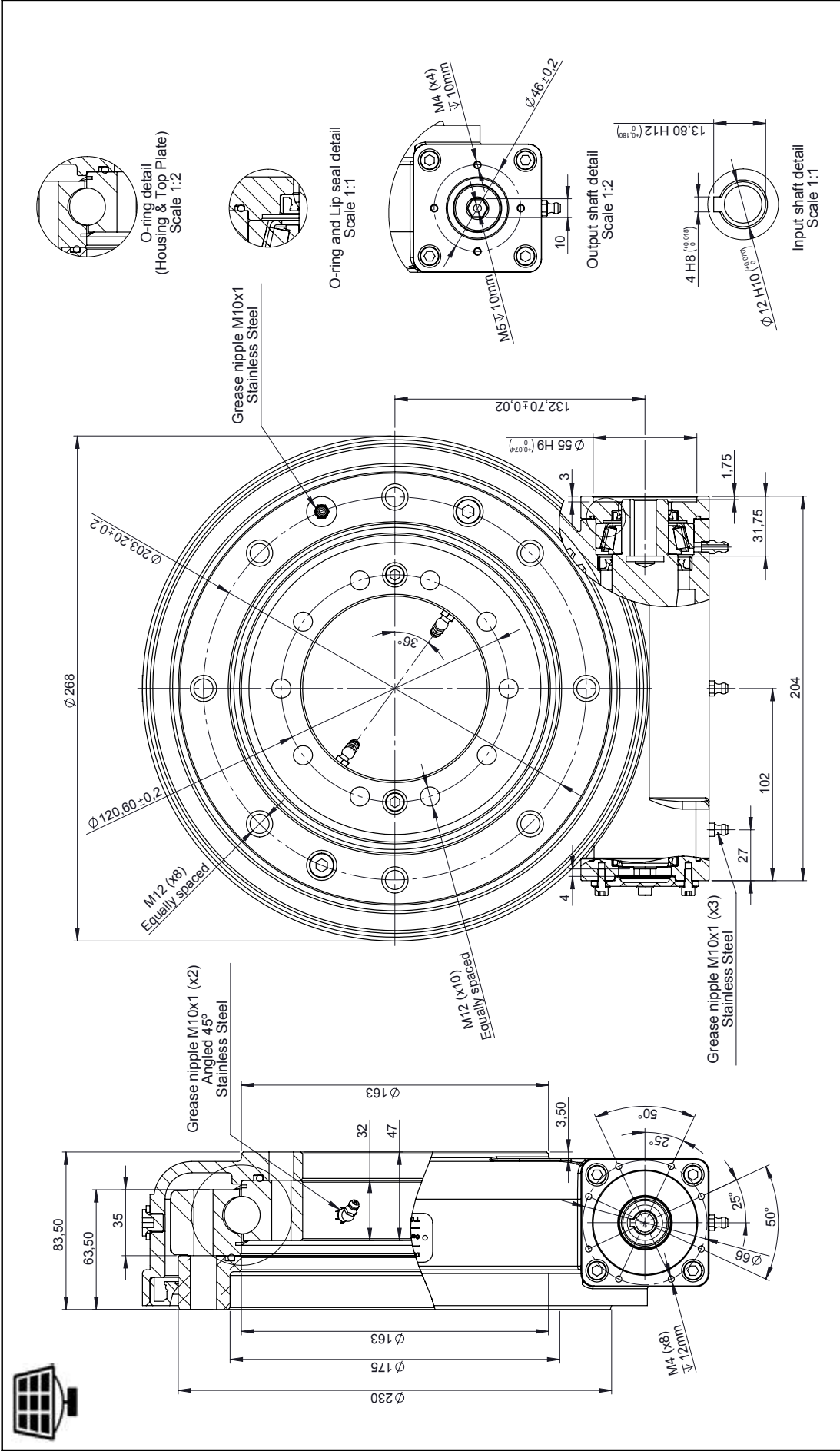
Units: mm

SHAFT: Ø 12MM KEYS SHAFT

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TE SERIES

METRIC

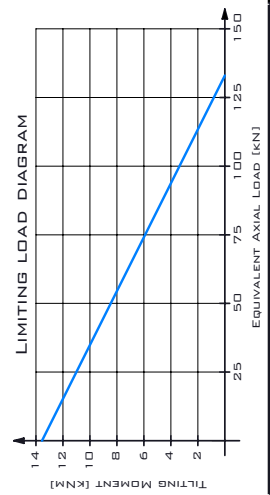


TE236-Z0-RM	
Reference	Rev
Denomination	A
MATERIAL:	SALES DRAWING
WEIGHT [kg]: 18.27	NUM. PIECES: 1
SCALE:	SHEET: 1 of 1

Units: mm

SHAFT: \varnothing 12MM KEYS

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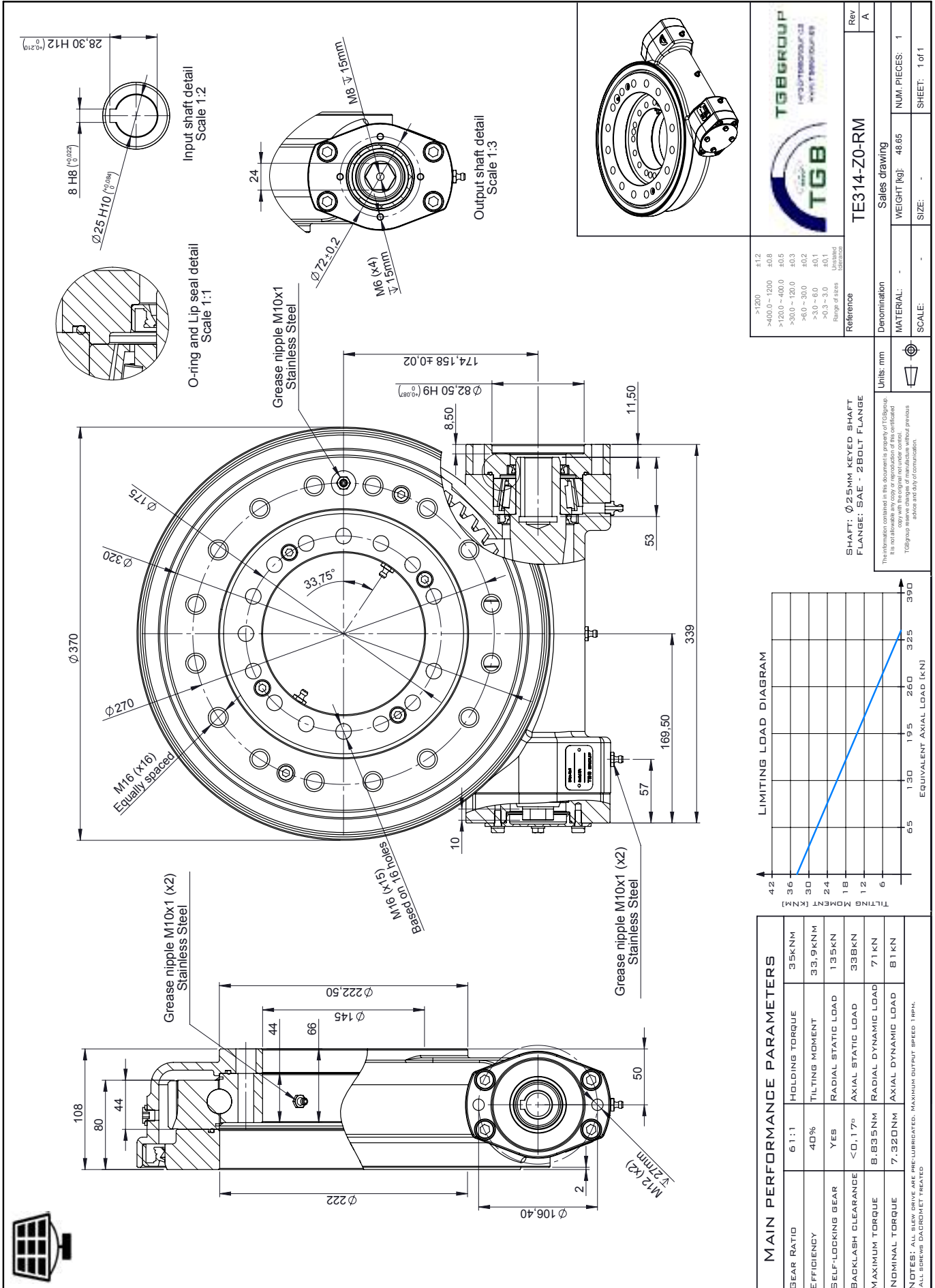


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	7:1:1
HOLDING TORQUE	9.4 kNm
EFFICIENCY	40%
TILTING MOMENT	13.5 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	53 kN
AXIAL STATIC LOAD	133 kN
BACKLASH CLEARANCE	< 0.20°
RADIAL DYNAMIC LOAD	1.458 Nm
AXIAL DYNAMIC LOAD	28 kN
NOMINAL TORQUE	1.042 Nm
AXIAL TORQUE	32 kN

NOTES: ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800 RPM.
ALL BEV DRIVE DACROMET TREATED

TE SERIES

METRIC

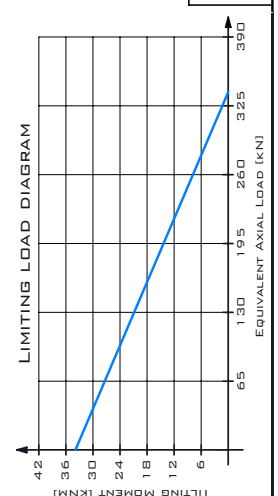


Reference	TE314-Z0-RM
Denomination	Sales drawing
MATERIAL:	WEIGHT (kg): 48.65
SCALE:	SIZE: -
NUM. PIECES:	1
SHEET:	1 of 1

Units: mm

SHAFT: $\varnothing 25$ MM KEYS SHAFTE
FLANGE: SAE - 2BOLT FLANGE

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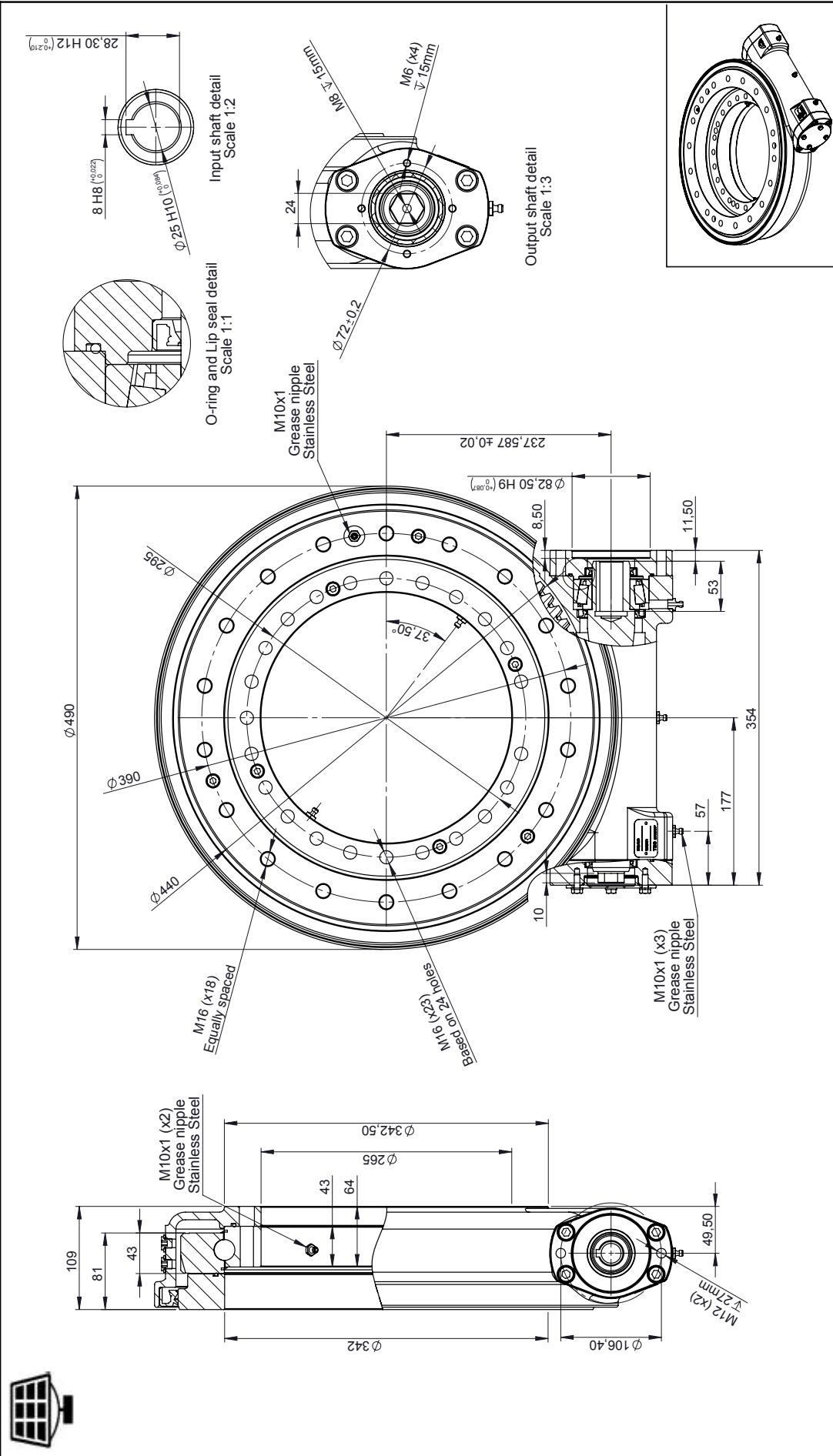


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	6:1:1
HOLDING TORQUE	35 kNm
EFFICIENCY	40%
TILTING MOMENT	33.9 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	135 kN
BACKLASH CLEARANCE	< 0.17%
AXIAL STATIC LOAD	338 kN
MAXIMUM TORQUE	8.835 Nm
RADIAL DYNAMIC LOAD	71 kN
NOMINAL TORQUE	7.320 Nm
AXIAL DYNAMIC LOAD	81 kN

NOTES: ALL BEW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800 RPM.
ALL BEWING DACTROMET TREATED

TE SERIES

METRIC



	Reference	TE435-Z0-RM
	Denomination	Sales Drawing
	MATERIAL:	WEIGHT [kg]: 70.34
	SCALE:	SIZE: -
		NUM. PIECES: 1
		SHEET: 1 of 1

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

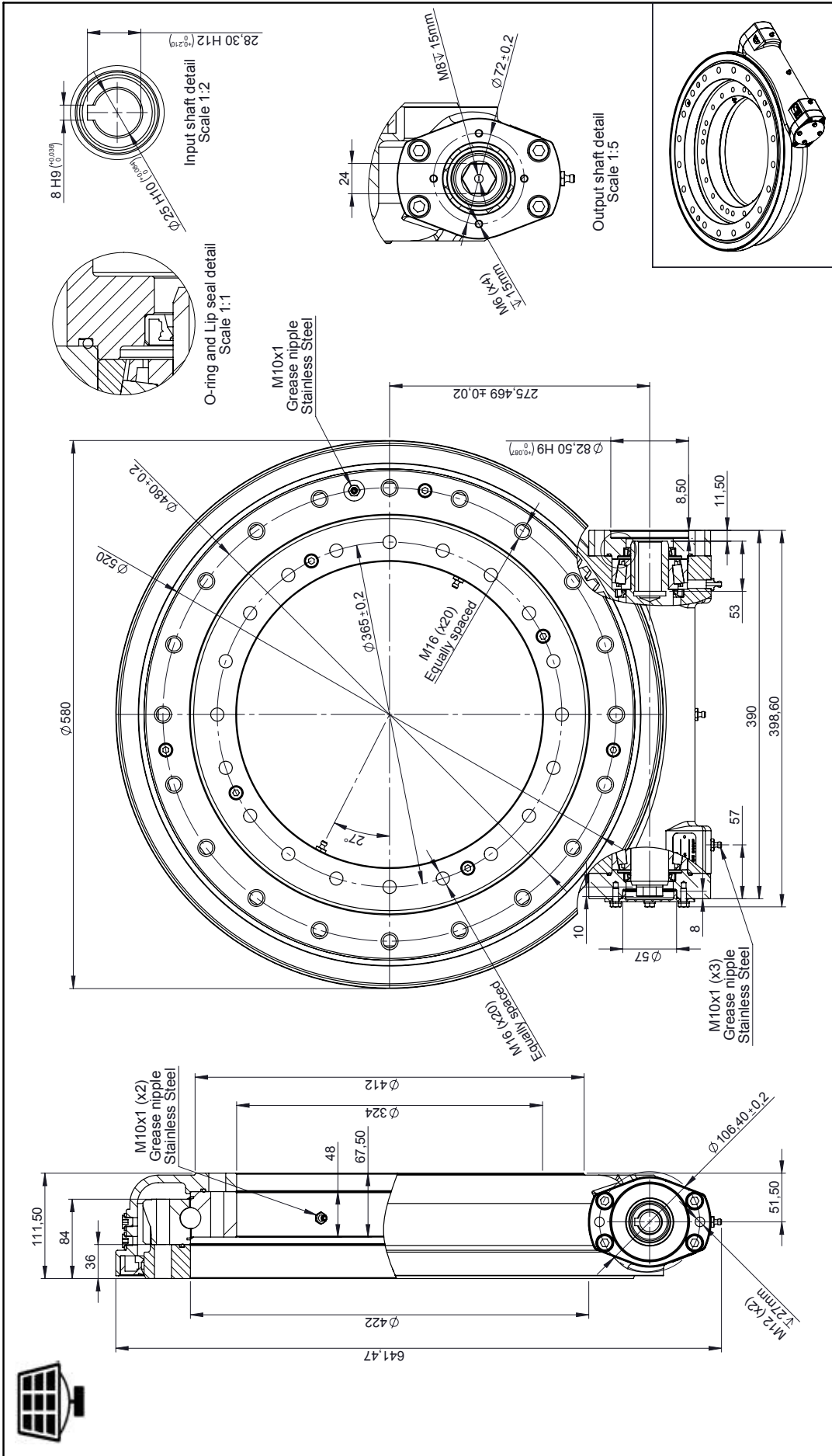
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Units: mm	
Units: mm	

Units: mm	
Units: mm	

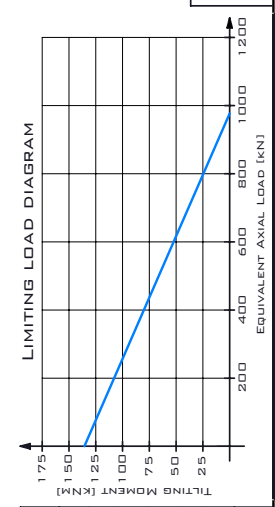
TE SERIES

METRIC



TE523-Z0-RM	
Reference	Denomination
>1200 +1.2 >400.0 - 1200 -0.8 >100.0 - 400.0 -0.5 >50.0 - 100.0 -0.3 >0.0 - 50.0 -0.2 >0.0 - 0.0 -0.1 >0.0 - 0.0 -0.1 Range of sizes Unaltered sources	Sales Drawing WEIGHT [kg]: 94.52 NUM. PIECES: 1 SIZE: - SCALE: -
Units: mm	Rev B
Shaft: Ø25mm keyed shaft Flange: SAE - 2 Bolt Flange	MATERIAL: - SCALE: -

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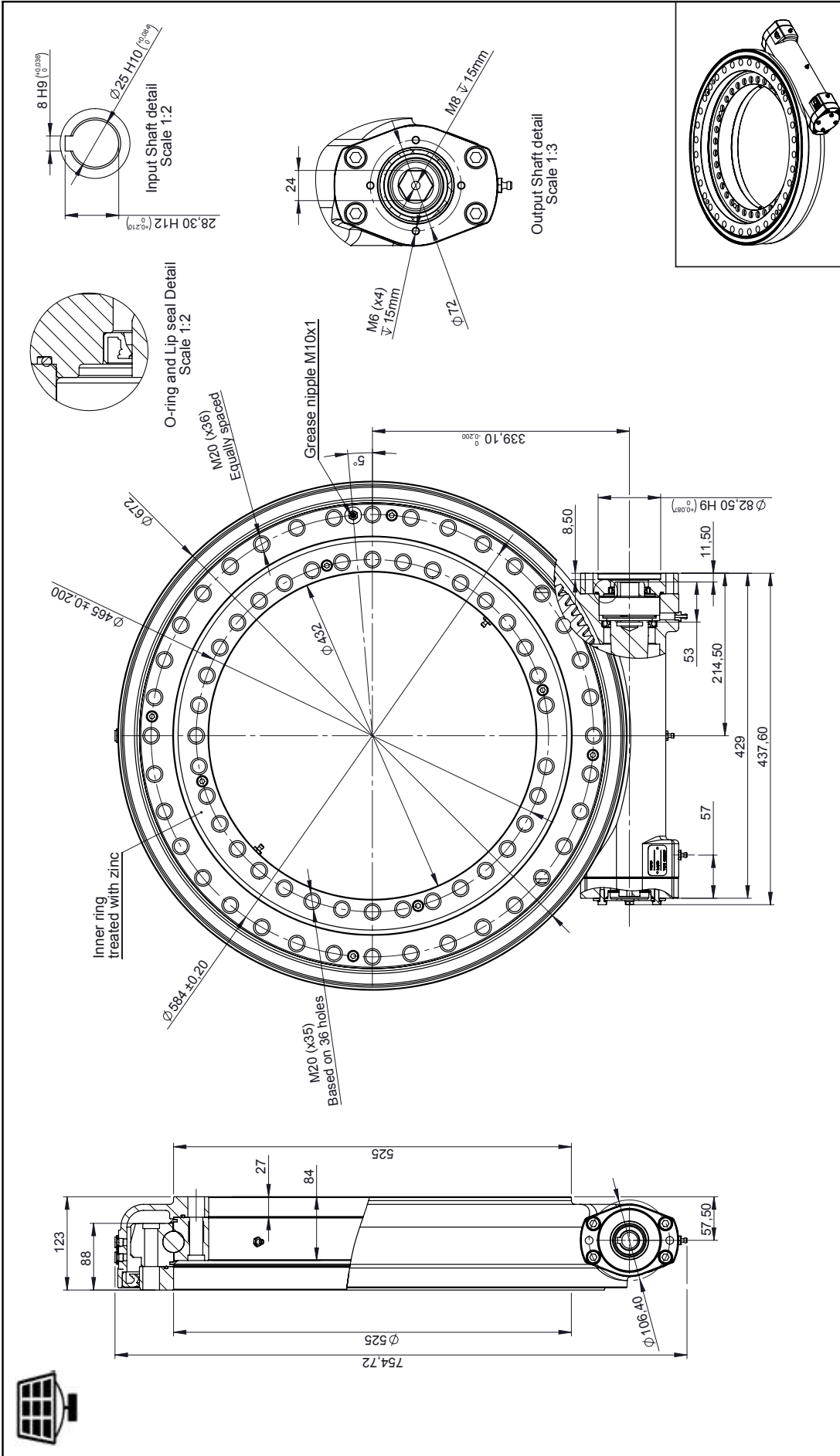


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	1.02:1
HOLDING TORQUE	65.1 kNm
EFFICIENCY	40%
TILTING MOMENT	1.35.6 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	39.1 kN
BACKLASH CLEARANCE	< 0.15°
AXIAL STATIC LOAD	97.7 kN
MAXIMUM TORQUE	18.034 kNm
RADIAL DYNAMIC LOAD	20.5 kN
NOMINAL TORQUE	15.096 kNm
AXIAL DYNAMIC LOAD	23.5 kN

NOTES: ALL DIMENSIONS ARE PRE-UNLUBRICATED. MAXIMUM OUTPUT SPEED 1100 RPM. ALL BEARINGS ARE PRE-TREATED.

TE SERIES

METRIC



TGB GROUP
HYDROMECHANICS
WITH TECHNOLOGY

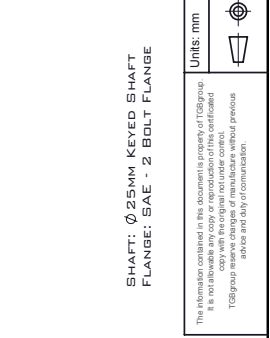
Reference: **TE639-Z0-RM**

Denomination: Sales Drawing

MATERIAL: -

SCALE: -

<p>Units: mm</p> <p>SHAFTE: $\phi 25$MM KEYS SHAFTE</p> <p>FLANGE: SAE - 2 BOLT FLANGE</p> <p><small>This information is provided in the documents for the purpose of TGB Group. It is not allowed to make any copy or reproduction of this confidential copy with the original (under control). TGB Group reserves the right to modify the data and drawings without previous notice and without communication.</small></p>	<p>Rev: A</p> <p>WEIGHT [kg]: 118,54</p> <p>NUM. PIECES: 1</p> <p>SIZE: -</p> <p>SHEET: 1 of 1</p>
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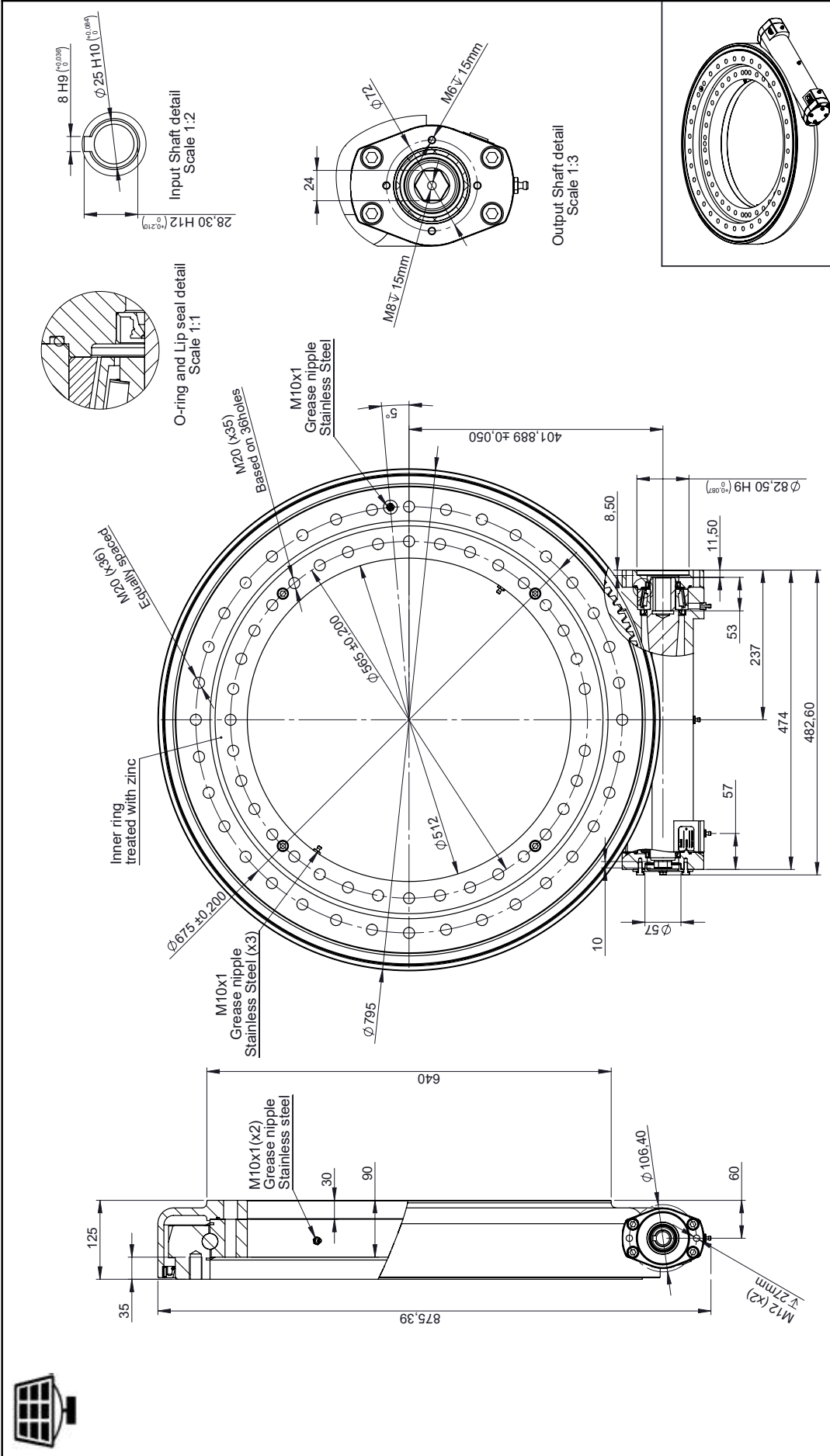


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	1 25:1
HOLDING TORQUE	95,2kNm
EFFICIENCY	40%
TILTING MOMENT	203,4kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	640kN
AXIAL STATIC LOAD	1.598kN
BACKLASH CLEARANCE	< 0,1 5°
RADIAL DYNAMIC LOAD	336kN
AXIAL DYNAMIC LOAD	384kN
NOMINAL TORQUE	23,500Nm
MAXIMUM TORQUE	30,500Nm

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

TE SERIES

METRIC



MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	1.50:1
EFFICIENCY	40%
SELF-LOCKING GEAR	YES
BACKLASH CLEARANCE	<0.15°
MAXIMUM TORQUE	45320NM
NOMINAL TORQUE	35260NM
NOTES: ALL BEV DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1RPM.	

LIMITING LOAD DIAGRAM	
AXIAL LOAD (KN)	TILTING MOMENT (KNM)
0	0
400	50
800	100
1200	150
1600	200
2000	250
2400	300
2800	350

SALES DRAWING	
Reference	TE760-Z0-RM
Denomination	Sales Drawing
MATERIAL	WEIGHT (kg): 192.73
SCALE	NUM. PIECES: 1
	SHEET: 1 of 1

TGB GROUP	
info@tgbresources.com www.tgbresources.com	

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

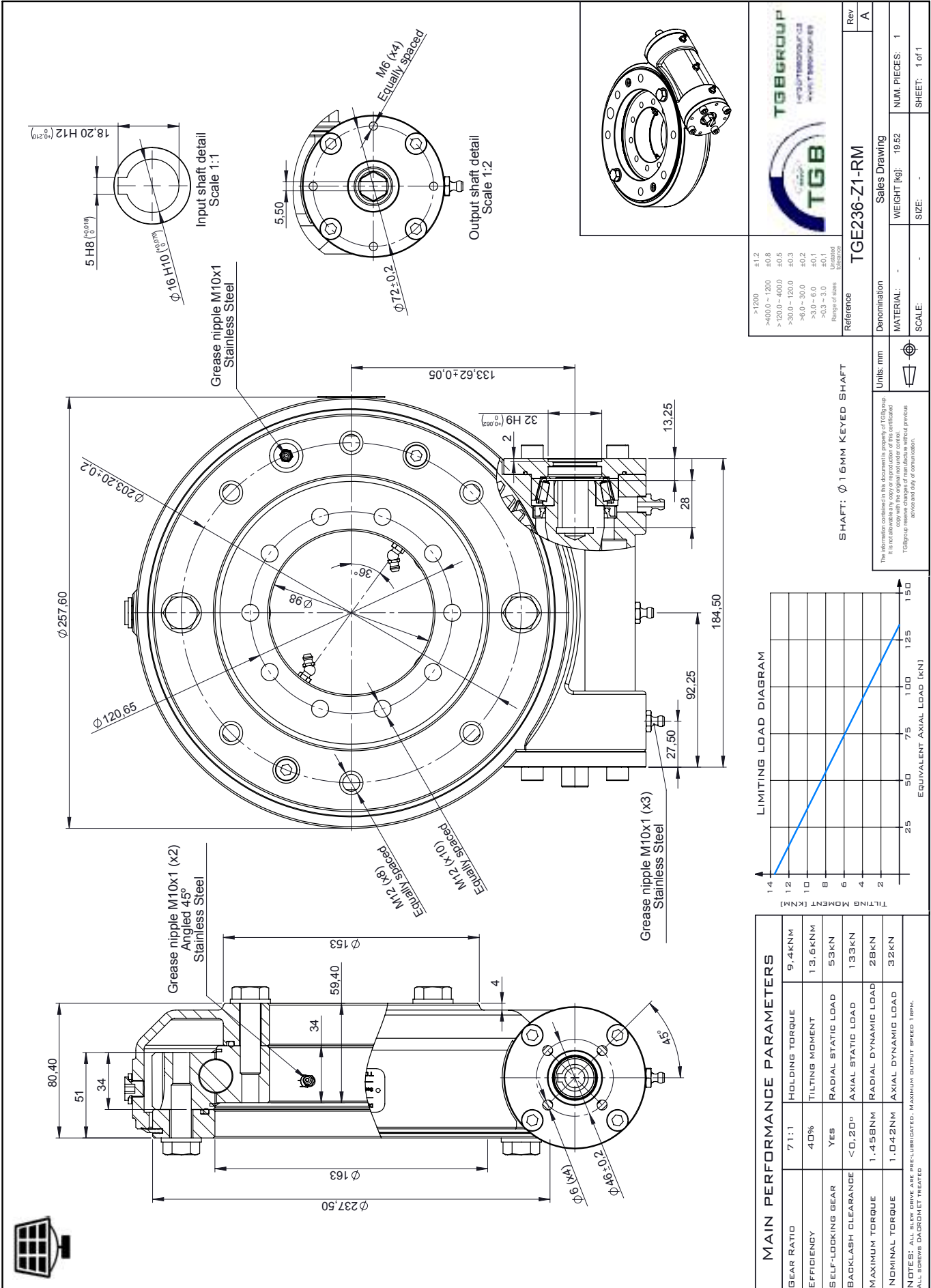
- Can be supplied with different colors or with special paint for extra corrosion protection
- Sizes in Metric and Imperial; Shaft types: Keyed shaft or Splined shaft

MAIN APPLICATIONS

- Construction machinery, indoor applications, etc.

TGE SERIES

METRIC



TGB GROUP
TGB

Reference: **TGE236-Z1-RM**

Denomination: **Sales Drawing**

MATERIAL: - WEIGHT [kg]: 19.52 NUM. PIECES: 1

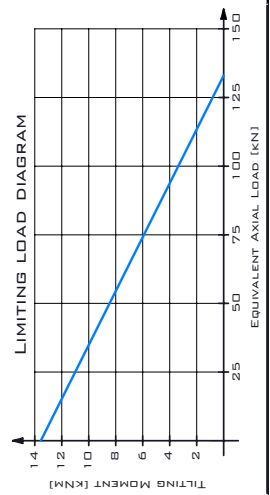
SCALE: - SIZE: - SHEET: 1 of 1

Rev: **A**

Units: mm

SHAFT: Ø 16MM KEYS SHAFT

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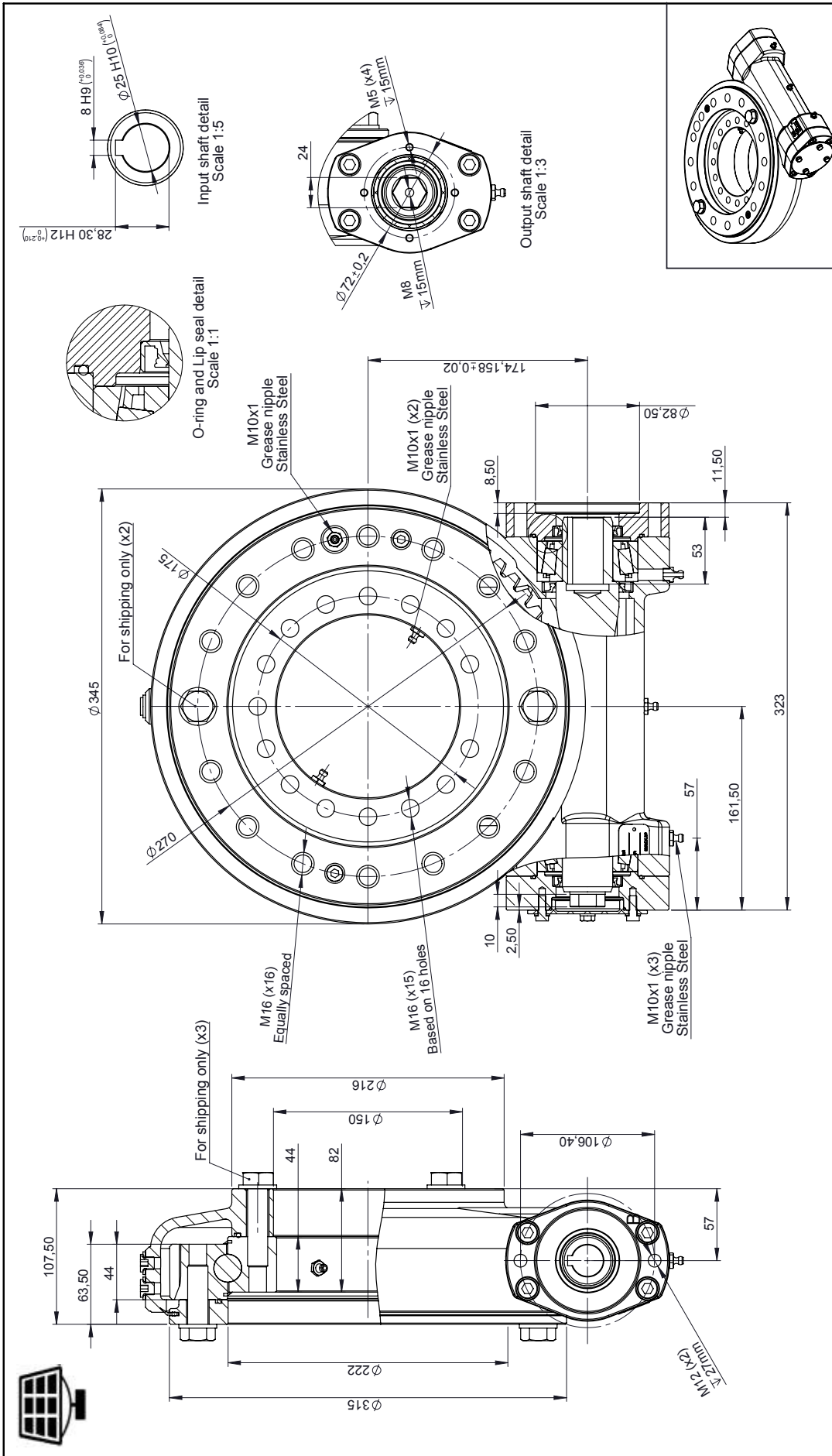


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	7:1:1
HOLDING TORQUE	9.4kNm
EFFICIENCY	40%
TILTING MOMENT	13.6kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	53kN
AXIAL STATIC LOAD	133kN
BACKLASH CLEARANCE	<0.20°
RADIAL DYNAMIC LOAD	28kN
AXIAL DYNAMIC LOAD	32kN
MAXIMUM TORQUE	1.458Nm
NOMINAL TORQUE	1.042Nm

NOTES: ALL BEVY DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1800RPM.
 ALL BEVYS DACROMET TREATED

TGE SERIES

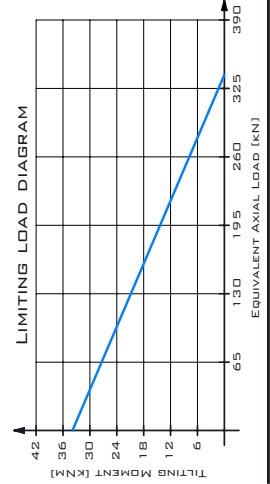
METRIC



TGE314-Z0-RM	Reference
+12 -400.0 - 1200 +20.0 - 4000 +20.0 - 1200 +0.0 - 30.0 +3.0 - 6.0 +0.3 - 3.0 0.00000	-412 -30.8 -50.5 -60.3 -60.2 -60.1 0.00000
Denomination	Sales Drawing
MATERIAL: -	WEIGHT (kg): 45.14
SCALE: -	SIZE: -
Units: mm	NUM. PIECES: 1
Rev	SHEET: 1 of 1

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

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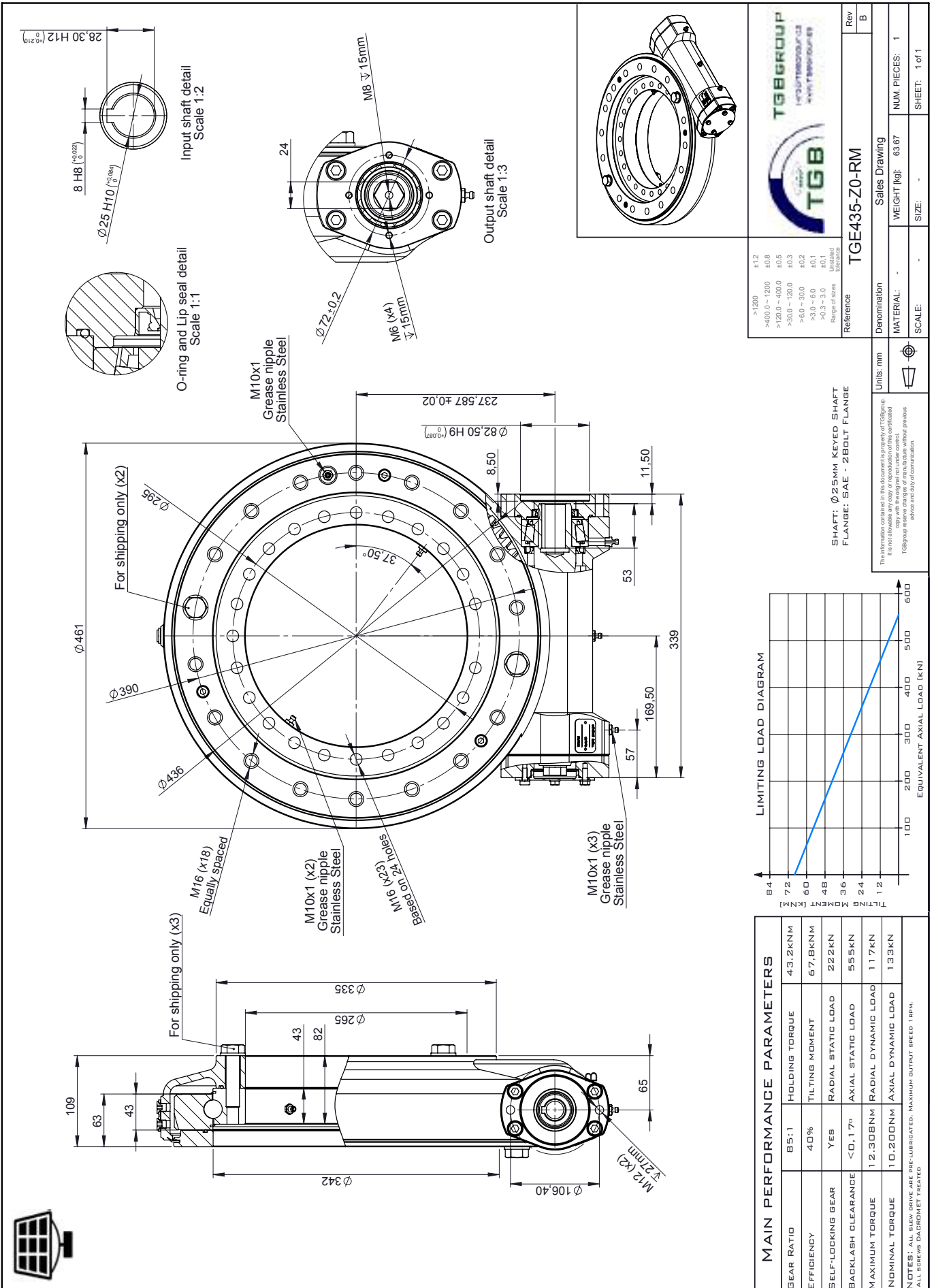


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	6.1:1
HOLDING TORQUE	35kNm
EFFICIENCY	40%
TILTING MOMENT	33,9kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	135kN
BACKLASH CLEARANCE	<0,17°
AXIAL STATIC LOAD	338kN
MAXIMUM TORQUE	8,835Nm
RADIAL DYNAMIC LOAD	71kN
NOMINAL TORQUE	7,320Nm
AXIAL DYNAMIC LOAD	81kN

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

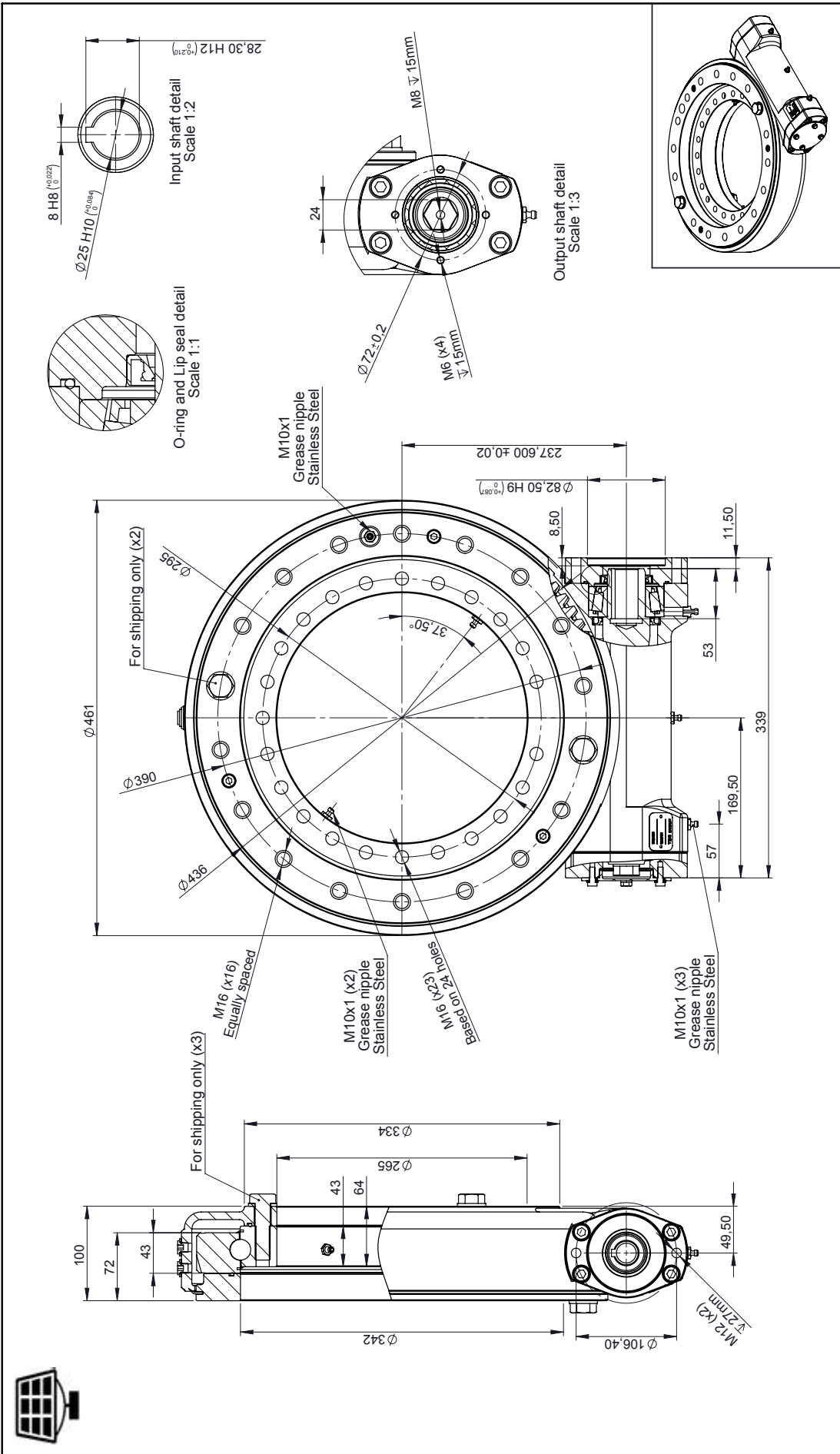
TGE SERIES

METRIC



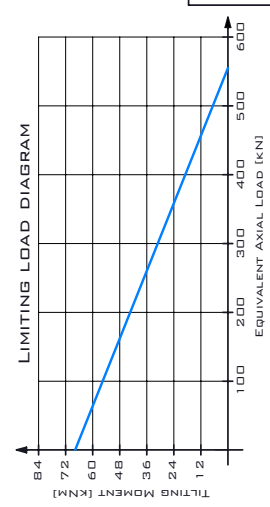
TGE SERIES

METRIC



Reference	TGETN435-Z0-RM
Denomination	Sales Drawing
MATERIAL	WEIGHT (kg): 64.42
SCALE	SIZE: A3
	NUM. PIECES: 1
	SHEET: 1 of 1

>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 Unrated (in kg) (in lb)	Units: mm
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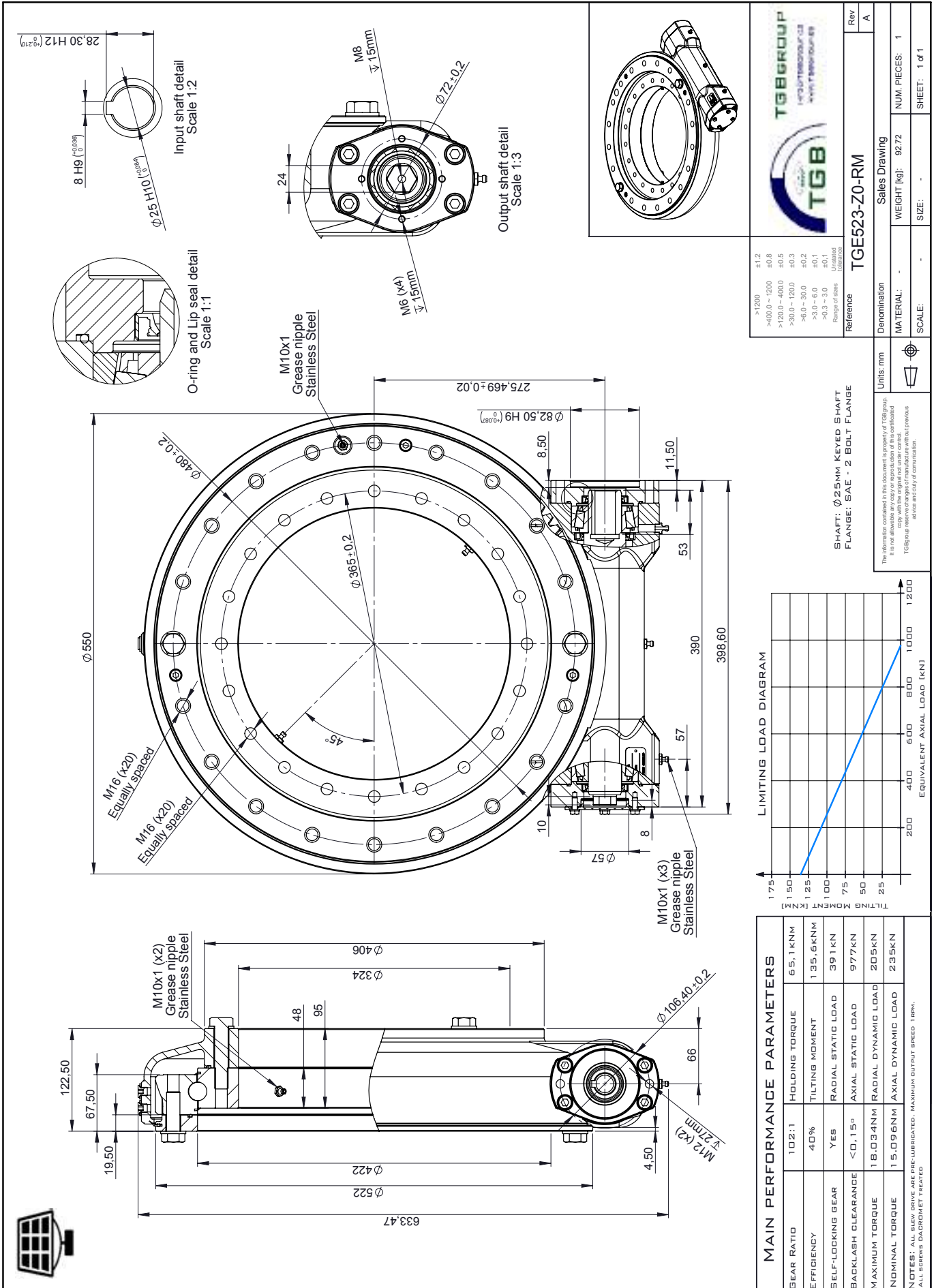


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	85:1
HOLDING TORQUE	43.2KNM
EFFICIENCY	40%
TILTING MOMENT	67.8KNM
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	222KN
BACKLASH CLEARANCE	<0.17°
AXIAL STATIC LOAD	555KN
MAXIMUM TORQUE	1.2.30DENM
RADIAL DYNAMIC LOAD	117KN
NOMINAL TORQUE	10.200DNM
AXIAL DYNAMIC LOAD	133KN

NOTES: ALL BEARINGS ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED: 11RPM.
ALL BEARINGS ARE PRE-TREATED.

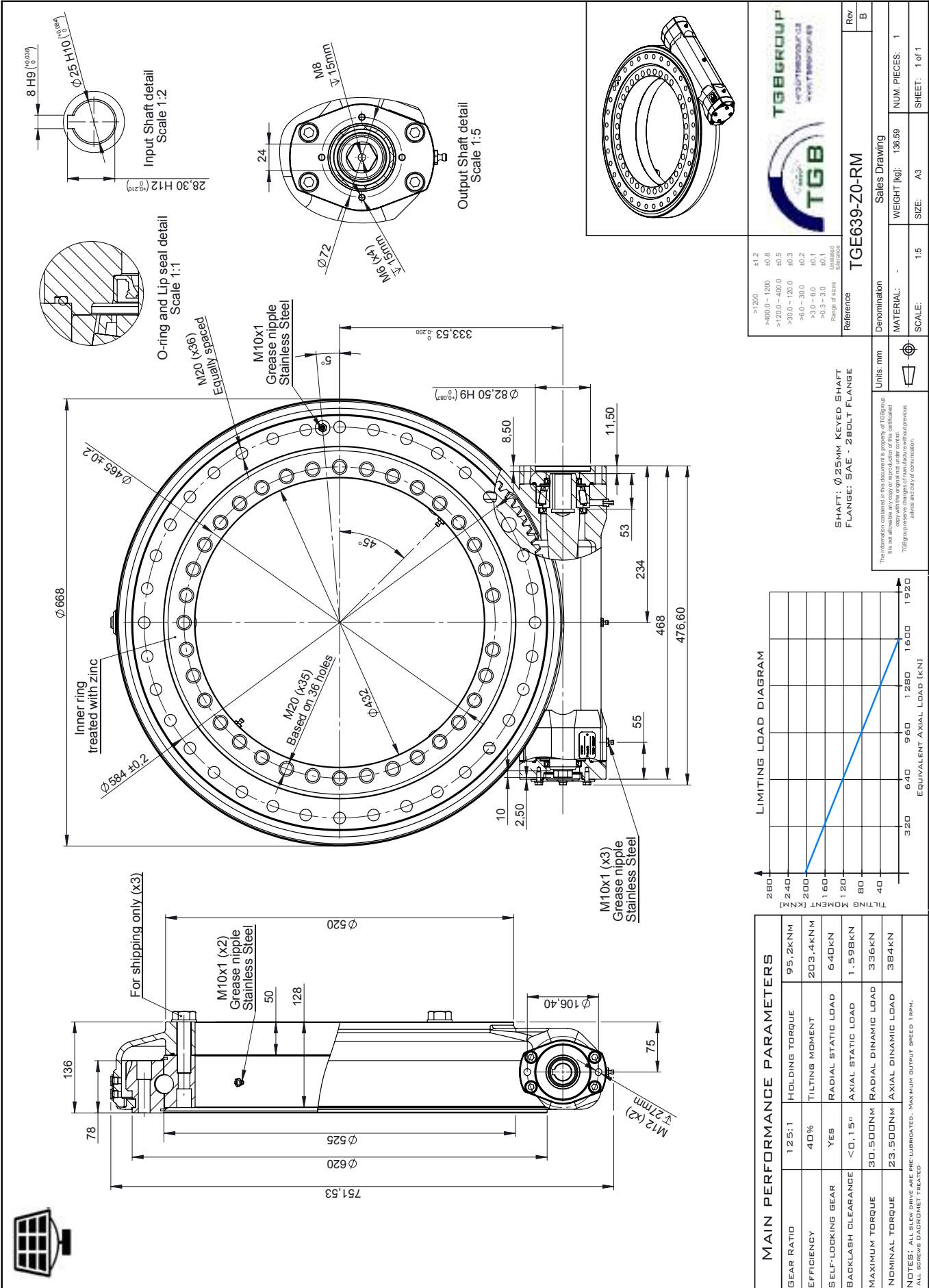
TGE SERIES

METRIC



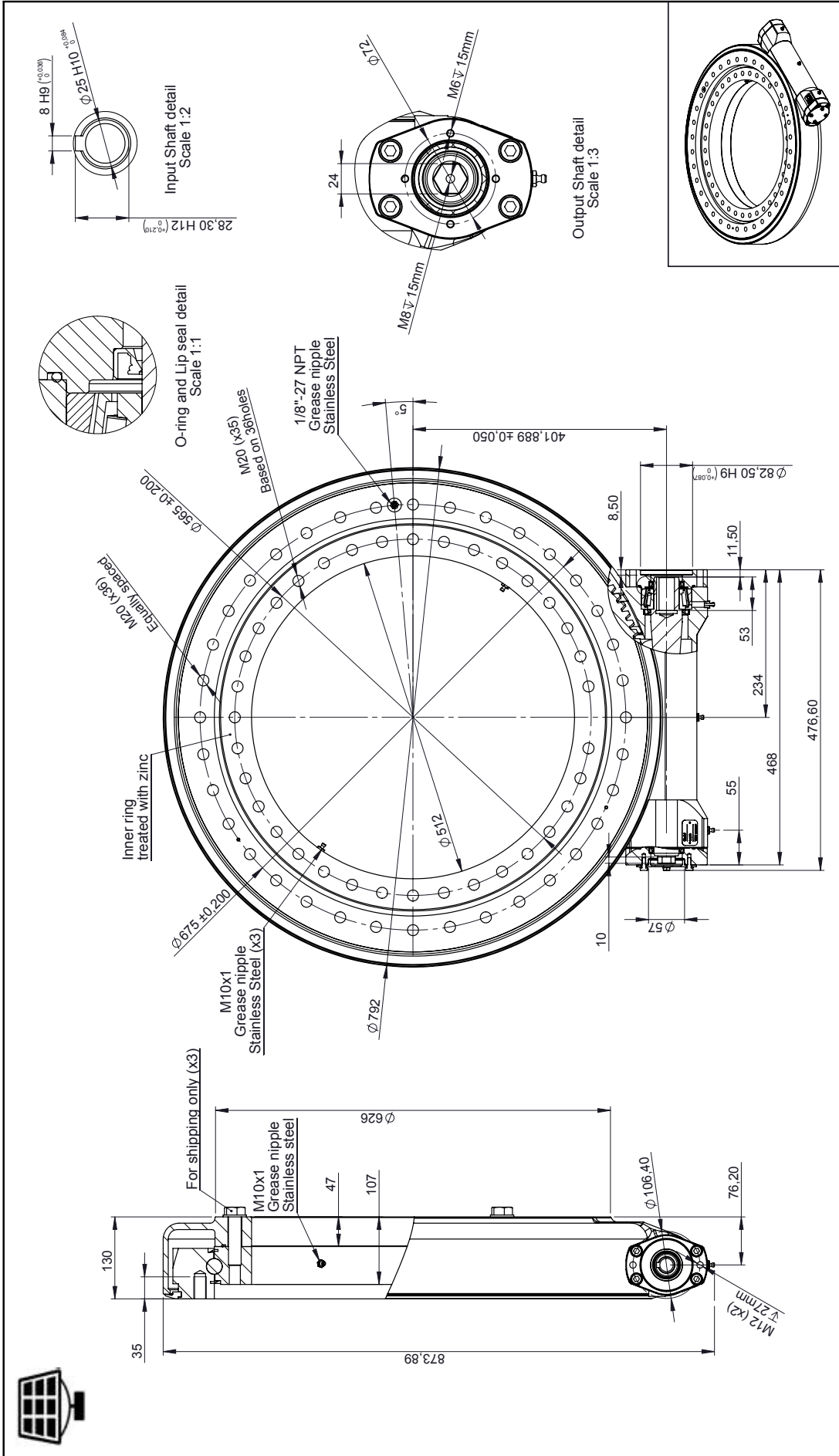
TGE SERIES

METRIC



TGE SERIES

METRIC



TGB GROUP
TGB

Reference: **TGE760-Z0-RM**

Denomination: Sales Drawing

MATERIAL: WEIGHT [kg]: 194.69

SCALE: NUM. PIECES: 1

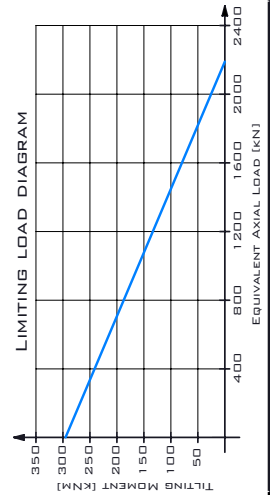
Rev: SHEET: 1 of 1

Units: mm

SHAFT: \varnothing 25MM KEYS SHAFTE

FLANGE: SAE - 2BOLT FLANGE

This document is valid with the accessories listed in the accessories list. It is not valid for use in any other configuration or for any other application. TGB Group reserves the right to modify the product without previous notice and without any responsibility.

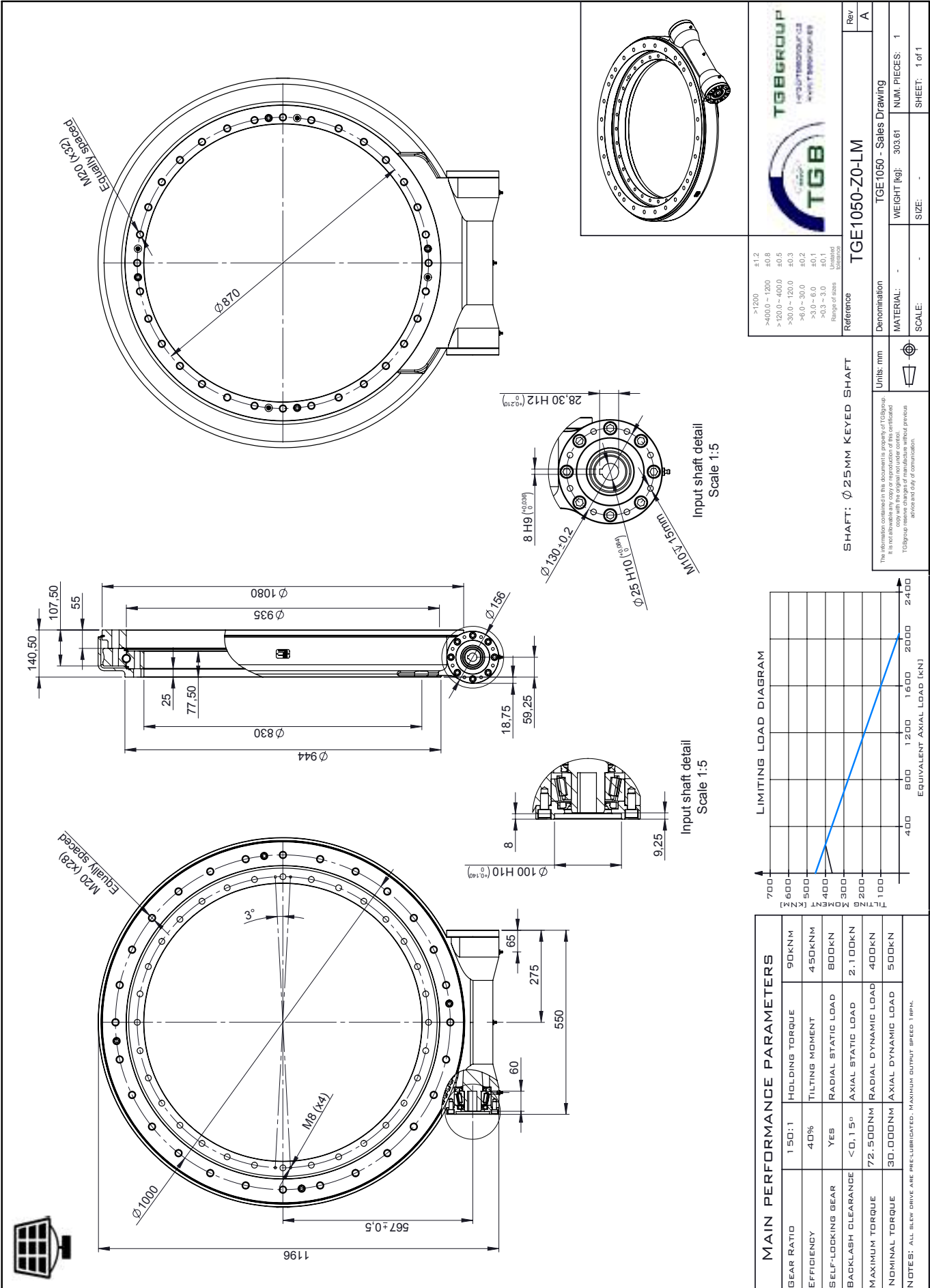


MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	1.50:1
HOLDING TORQUE	142.5 kNm
EFFICIENCY	40%
TILTING MOMENT	300 kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	832 kN
BACKLASH CLEARANCE	< 0.15°
AXIAL STATIC LOAD	2190 kN
MAXIMUM TORQUE	45320 Nm
RADIAL DYNAMIC LOAD	411 kN
NOMINAL TORQUE	95260 Nm
AXIAL DYNAMIC LOAD	517 kN

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

TGE SERIES

METRIC

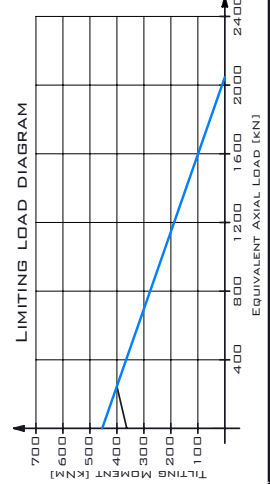


Reference	TGE1050-Z0-LM
Denomination	TGE1050 - Sales Drawing
MATERIAL:	WEIGHT [kg]: 303.61
SCALE:	NUM. PIECES: 1
	SIZE: -
	SHEET: 1 of 1

SHAFT: $\phi 25$ MM KEYS

Units: mm

The dimensions with the tolerance in this drawing are given in millimeters. It is recommended to use the original manufacturer's drawings for the construction of the gearbox. TGBgroup reserves the right to change the dimensions without previous notice.



MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	1.50:1
HOLDING TORQUE	90KNM
EFFICIENCY	40%
TILTING MOMENT	450KNM
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	800KN
AXIAL STATIC LOAD	2.100KN
BACKLASH CLEARANCE	< 0.15°
RADIAL DYNAMIC LOAD	400KN
AXIAL DYNAMIC LOAD	500KN
MAXIMUM TORQUE	72.500NM
NOMINAL TORQUE	30.000NM

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

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.

DADA SERIES

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	< 0,03° (< 0,5MRAD)	AXIAL STATIC LOAD	800KN
MAXIMUM TORQUE	50,000NMI	RADIAL DYNAMIC LOAD	1 60KN
IP	55	AXIAL DYNAMIC LOAD	380KN

NOTES: ALL BEV DRIVE ARE PRELUBRICATED. MAXIMUM OUTPUT SPEED 1800RPM.

LIMITING LOAD DIAGRAM

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	< 0,03° (< 0,5MRAD)	AXIAL STATIC LOAD	800KN
MAXIMUM TORQUE	50,000NMI	RADIAL DYNAMIC LOAD	1 60KN
IP	55	AXIAL DYNAMIC LOAD	380KN

NOTES: ALL BEV DRIVE ARE PRELUBRICATED. MAXIMUM OUTPUT SPEED 1800RPM.

SHAFT: Ø 38MM KEVED SHAFT

The drawing is subject to the following tolerances (IT) (Ra):
 IT is not to be used for the coordination of shaft and hole.
 copy with the original manufacturer control.
 Tolerances reserved for manufacturer without previous approval (Ra) if dimensioned.

Input shaft detail
Scale 1:5

Units: mm

Reference: DADA6-Z0-LM

Denomination: Sales Drawing

MATERIAL: -

SCALE: -

WEIGHT [kg]: 183,23

NUM. PIECES: 1

Rev: B

SIZE: -

SHEET: 1 of 1

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Range of sizes
 >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
 Unlimited tolerance

Ø 165
 Ø 11 (x8)
 Equally Spaced

10 H9 (0.009)
 41,10 H12 (0.250)

Ø 38 H11 (0.016)

135.50
 3
 5.50
 40
 40
 30
 130

Ø 680
 M20 (x24)
 Equally Spaced

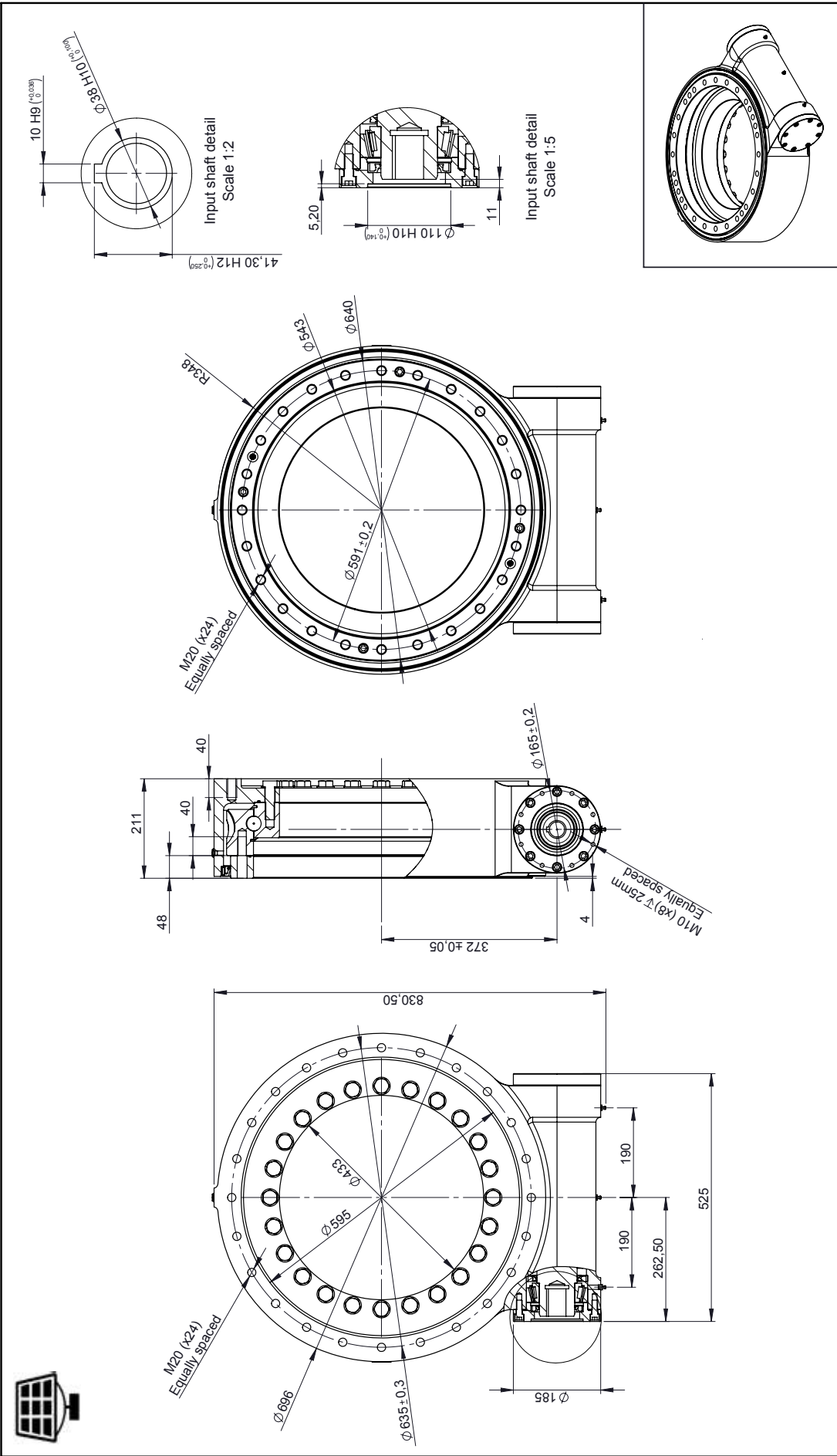
Ø 431.80
 Ø 582

Ø 345 ±0.10
 185
 18
 95
 75
 545

Grease Nipple
 M10x1 (x3)

M20 (x25)
 Based on 30holes
 Ø 466 ±0.3

DADA SERIES



TGB GROUP
Turbine Gearboxes
- 1970-1980-1990-2000-2010-2020

Rev: **A**

Reference: **DADA8S-Z0-RM**

Sales Drawing

WEIGHT [kg]: 300.68

NUM. PIECES: 1

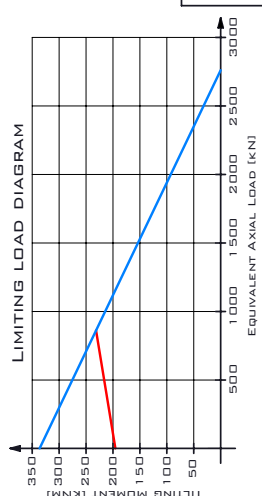
SCALE: -

SHEET: 1 of 1

SHAFT: Ø38MM KEYS SHAF

Units: mm

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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 BLEW BRVE ARE PRELUBRICATED. MAXIMUM OUTPUT SPEED 1800RPM.

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.

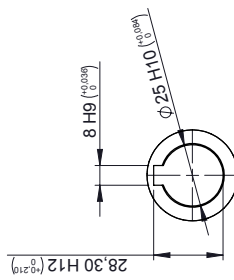
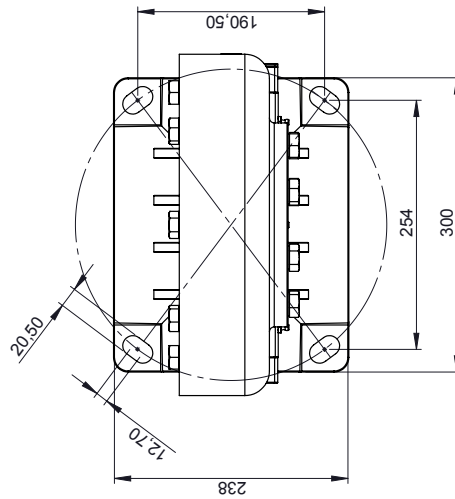
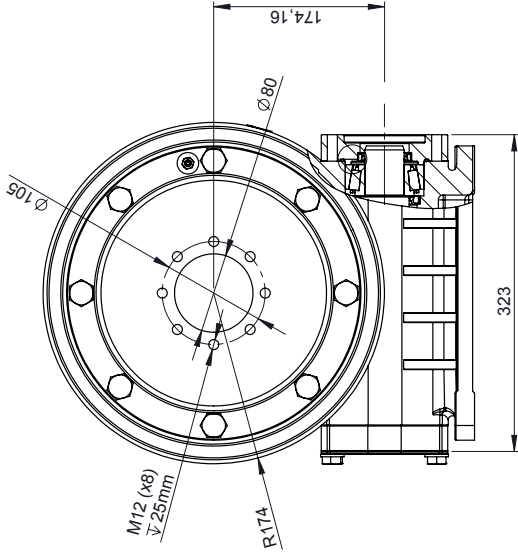
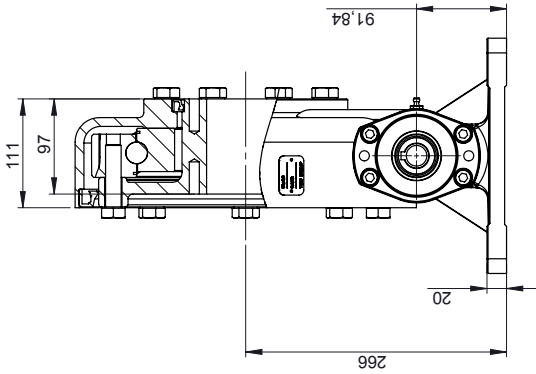
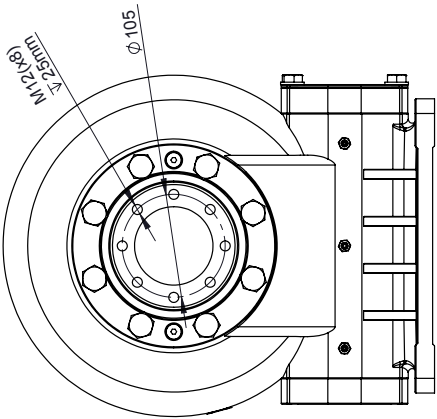
MAIN FEATURES

- 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

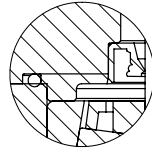
MAIN APPLICATIONS

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

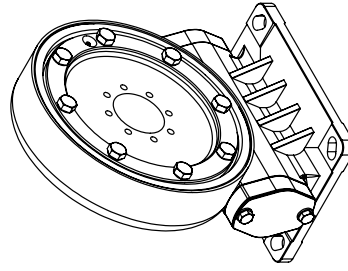
VERTICAL SERIES



Input shaft detail
Scale 1:2

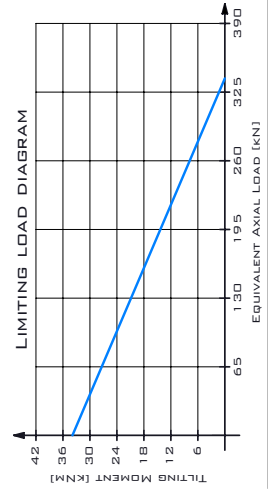


Lip seal detail
Scale 1:1



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
AXIAL STATIC LOAD	338KN
BACKLASH CLEARANCE	< 0.17%
RADIAL DYNAMIC LOAD	8.835NM
AXIAL DYNAMIC LOAD	7.320NM
MAXIMUM TORQUE	71KN
NOMINAL TORQUE	81KN

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



>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
Unrated	Unrated
Minimum	Minimum

Reference	TGZ314-Z1-RM	Rev	A
Denomination	Sales Drawing	WEIGHT [kg]	66.15
MATERIAL:		NUM. PIECES:	1
SCALE:		SIZE:	
			SHEET: 1 of 1

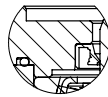
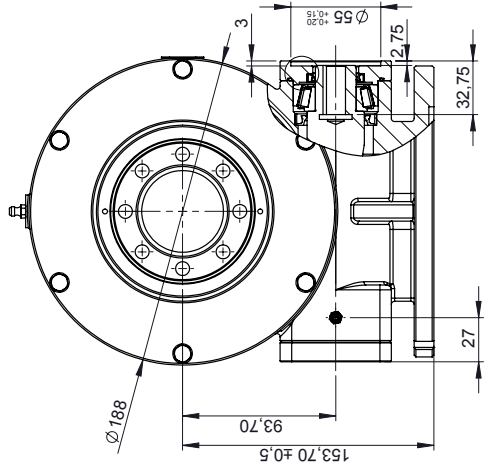
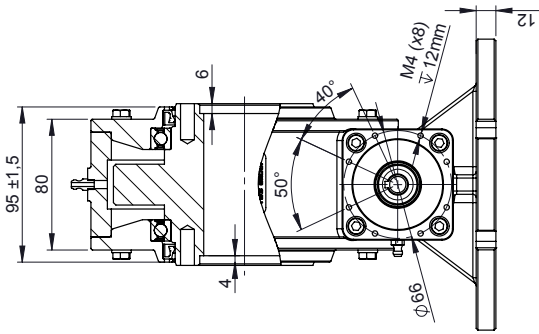
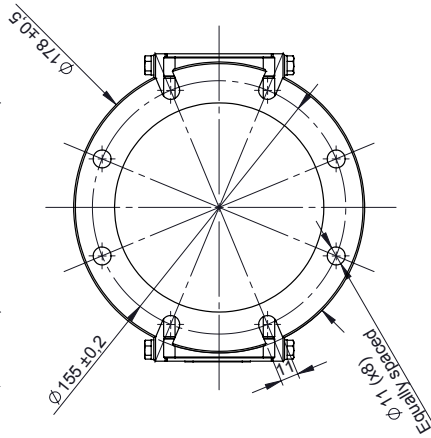
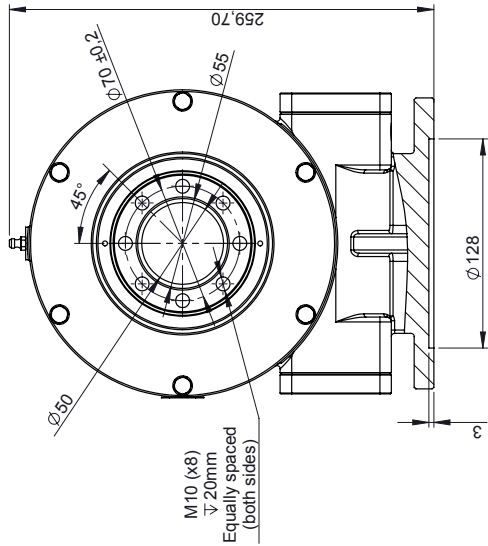
SHAFT: Ø25MM KEYS SHAFT

Units: mm

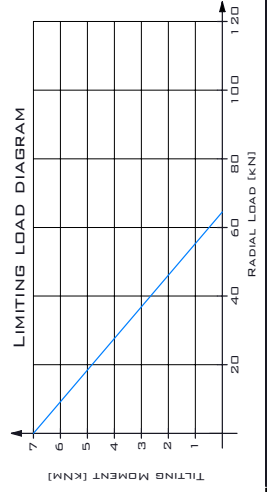
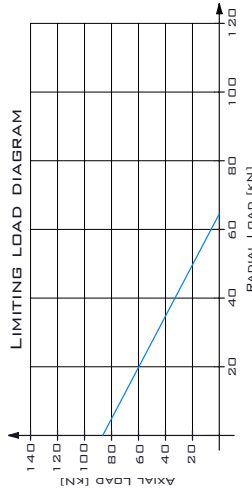
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VERTICAL SERIES



O-ring and Lip seal detail
Scale 1:1



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	12.8kN
MAXIMUM TORQUE	1.200Nm	RADIAL DYNAMIC LOAD	30kN
NOMINAL TORQUE	600Nm	AXIAL DYNAMIC LOAD	12kN

NOTES: ALL BLOW DRIVE ARE PRE-LUBRICATED. MAXIMUM OUTPUT SPEED 1RPM.
ALL BEHNS DAEDROMET TREATED

Reference	Denomination	Rev
TVR160-Z0-RM	Sales Drawing	A

Unit: mm	Weight (kg)	Num. Pieces
MATERIAL:	18.27	1
SCALE:	SIZE:	SHEET: 1 of 1

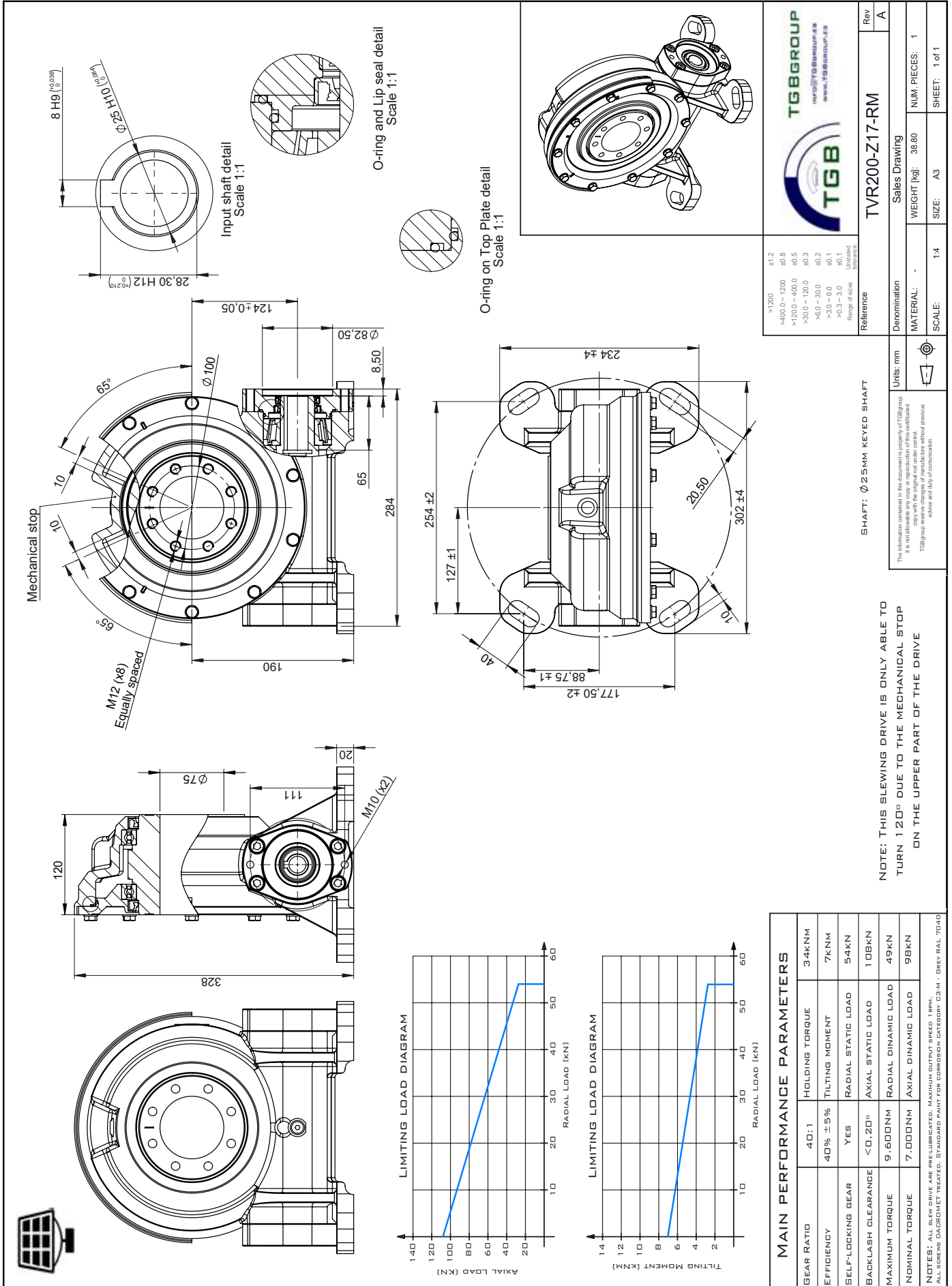
Range of sizes

>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

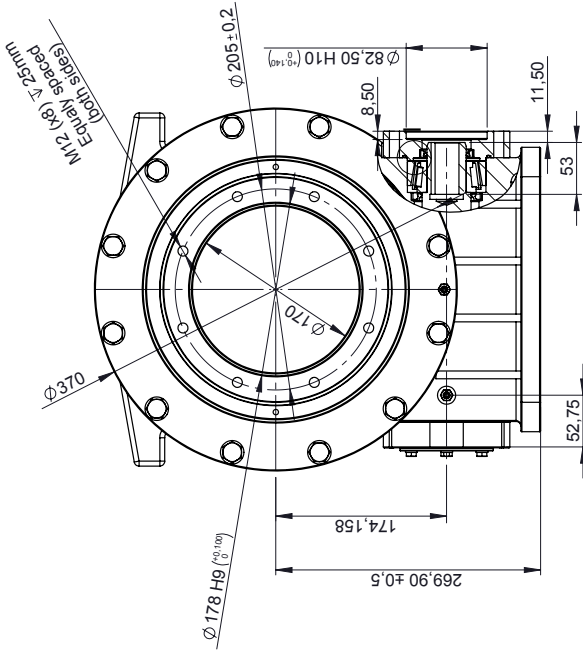
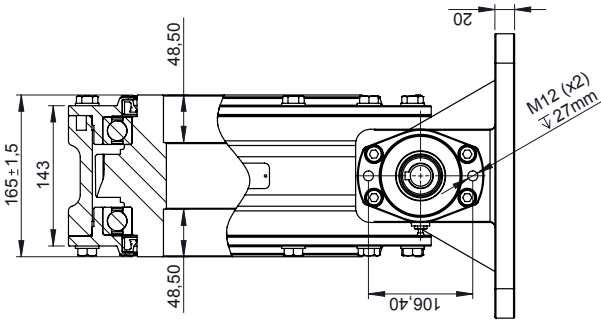
Unreated
lubricants

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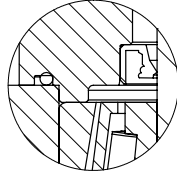
VERTICAL SERIES



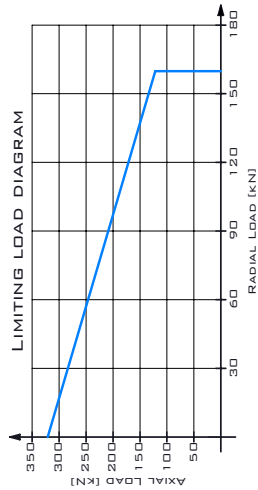
VERTICAL SERIES



Input shaft detail
Scale 1:2

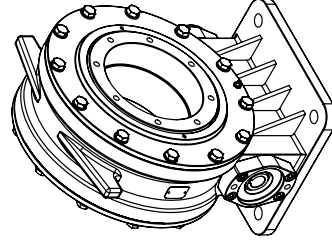
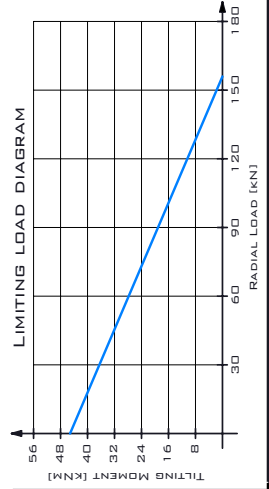
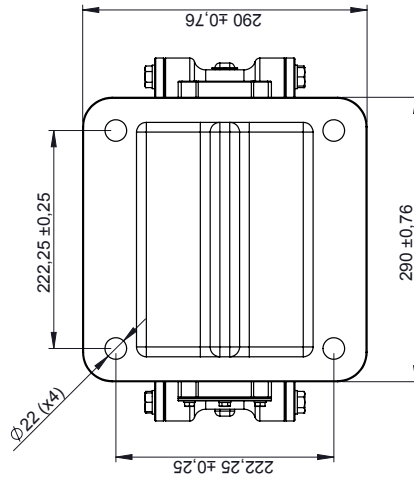


O-ring and Lip seal detail
Scale 1:1



MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	6:1:1
HOLDING TORQUE	35kNm
EFFICIENCY	40%
TILTING MOMENT	33.9kNm
SELF-LOCKING GEAR	YES
RADIAL STATIC LOAD	135kN
AXIAL STATIC LOAD	338kN
RADIAL DYNAMIC LOAD	71kN
AXIAL DYNAMIC LOAD	81kN

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



>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
Unlubricated
In lubrication



Reference	TVR314-Z0-RM
Denomination	Sales Drawing
MATERIAL:	WEIGHT [kg]: 101.85
SCALE:	NUM. PIECES: 1
	SIZE:
	SHEET: 1 of 1

SHAFT: Ø 25MM KEYS SHAFT

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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

M10 (x8)
20mm
Equally spaced
(both sides)

Input shaft detail
Scale 1:1

Input shaft detail
Scale 1:1

LIMITING LOAD DIAGRAM

M10 (x8)
20mm
Equally spaced
(both sides)

Input shaft detail
Scale 1:1

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

Units: mm

Reference

DAD160-Z0

Denomination

Sales Drawing

MATERIAL:

WEIGHT [kg]: 32.86

SCALE:

SIZE:

NUM. PIECES: 1

SHEET: 1 of 1

SHAFT: Ø 12MM KEYS SHAFT

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Units: mm

Reference

DAD160-Z0

Denomination

Sales Drawing

MATERIAL:

WEIGHT [kg]: 32.86

SCALE:

SIZE:

NUM. PIECES: 1

SHEET: 1 of 1

MAIN PERFORMANCE PARAMETERS

GEAR RATIO	62:1	HOLDING TORQUE	5KNM
EFFICIENCY	30%	TILTING MOMENT	7.1KNM
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 1800RPM.
ALL BEW DRIVES DADROHET TREATED

Reference

DAD160-Z0

Denomination

Sales Drawing

MATERIAL:

WEIGHT [kg]: 32.86

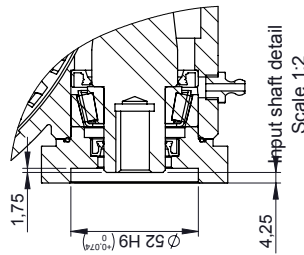
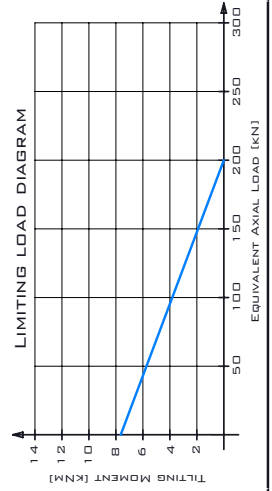
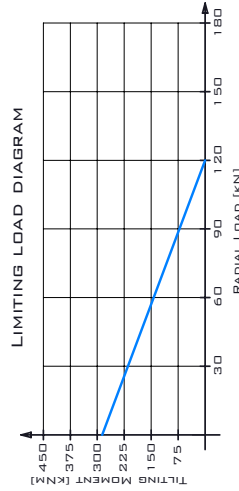
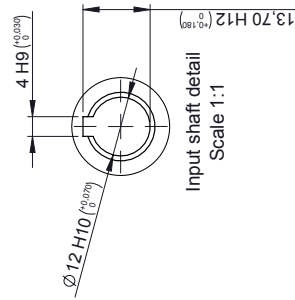
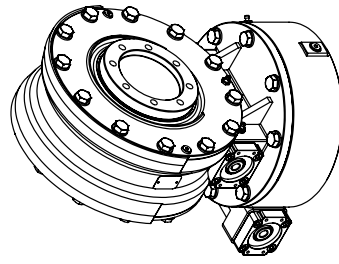
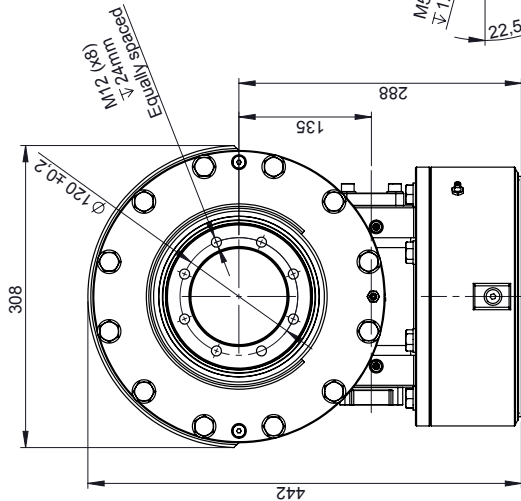
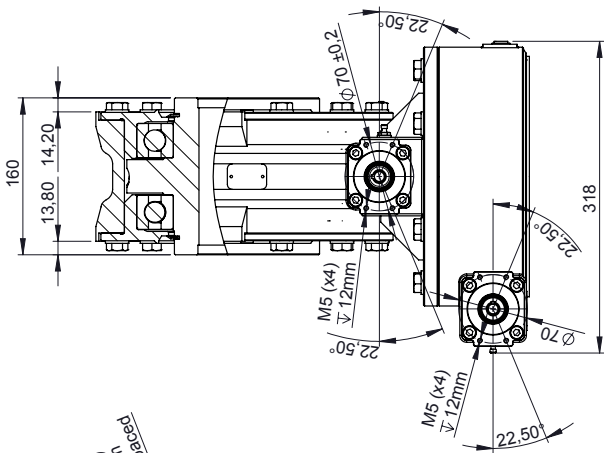
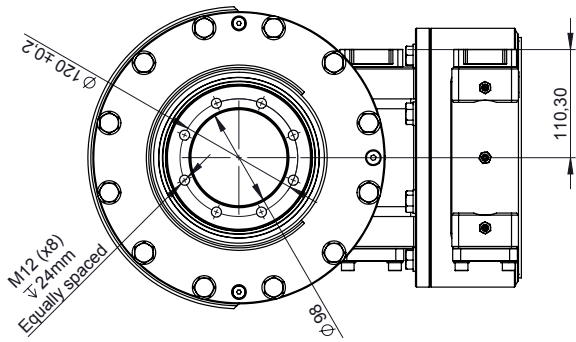
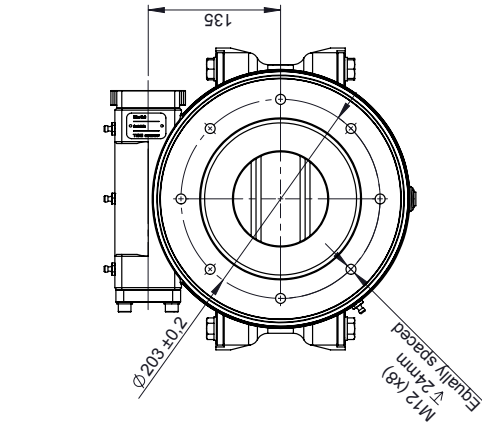
SCALE:

SIZE:

NUM. PIECES: 1

SHEET: 1 of 1

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
AXIAL STATIC LOAD	200kN
BACKLASH CLEARANCE	<0.1°
RADIAL DYNAMIC LOAD	77kN
AXIAL DYNAMIC LOAD	55kN
NOMINAL TORQUE	2.800Nm

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

Reference	Denomination	Units: mm	Scale
DAD5-Z1-LM <td>Sales Drawing <td>mm <td>1 of 1 </td></td></td>	Sales Drawing <td>mm <td>1 of 1 </td></td>	mm <td>1 of 1 </td>	1 of 1
	MATERIAL:	WEIGHT [kg]: 90.33	NUM. PIECES: 1
	SCALE:	SIZE:	SHEET: 1 of 1

TGB GROUP

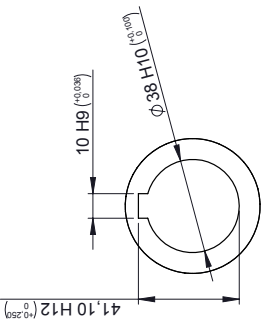
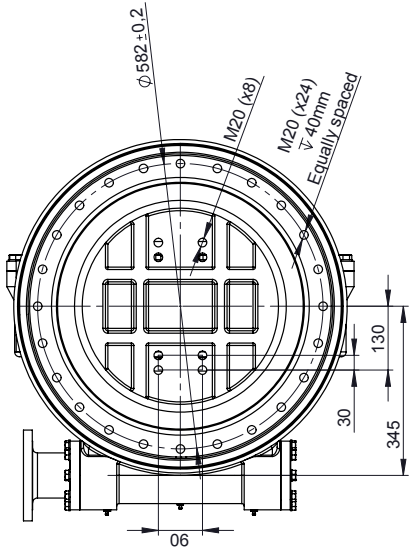
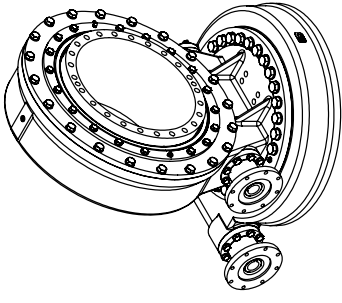
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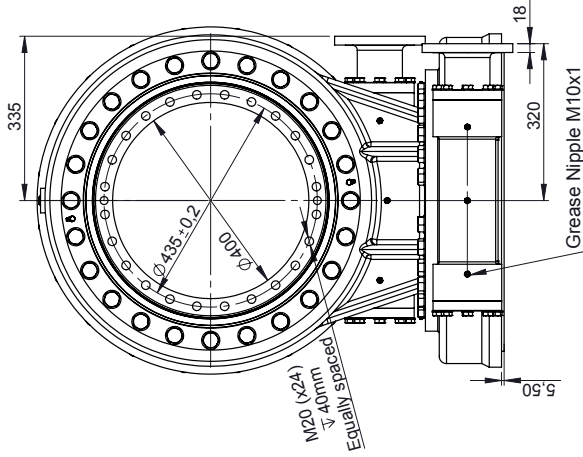
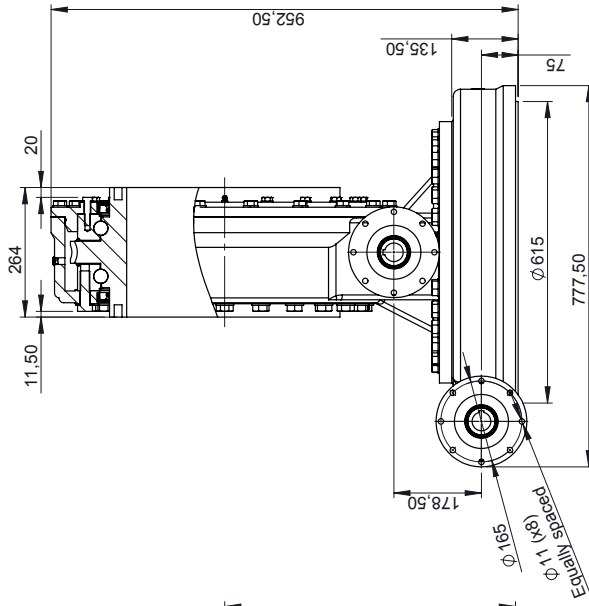
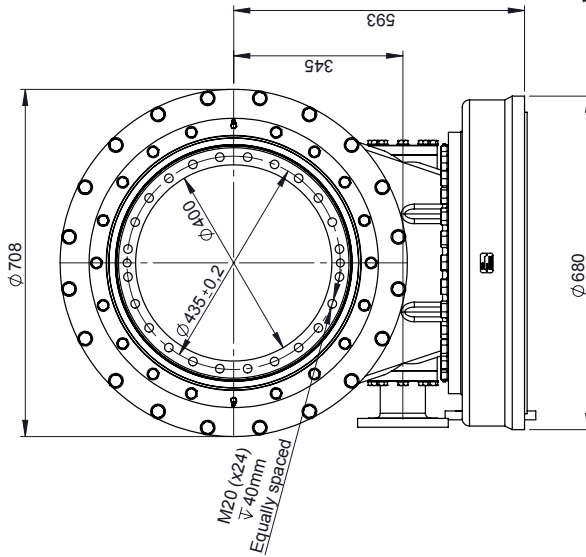
SHAFTE: Ø 12MM KEYS SHAFTE



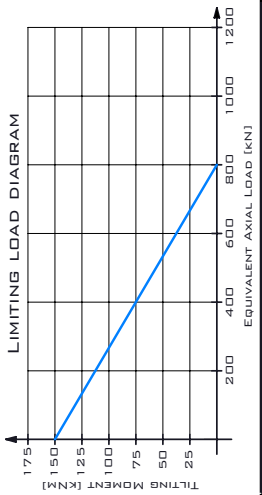
DAD SERIES



Input shaft detail
Scale 1:2



MAIN PERFORMANCE PARAMETERS	
GEAR RATIO	102:1
EFFICIENCY	34%
SELF-LOCKING GEAR	YES
BACKLASH CLEARANCE (<D,5MRAD)	<0,09°
MAXIMUM TORQUE	50,000NMI
IP	55
HOLDING TORQUE	84KNM
TILTING MOMENT	150KNM
RADIAL STATIC LOAD	315KN
AXIAL STATIC LOAD	800KN
RADIAL DYNAMIC LOAD	160KN
AXIAL DYNAMIC LOAD	380KN



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Reference: **DAD6-Z0-LM**

Denomination: Sales Drawing

MATERIAL: -

SCALE: -

Units: mm

SHAFIT: Ø38MM KEYS SHAFT

The drawings are with the dimensions in millimeters (mm).
It is recommended to use the original manufacturer's drawings.
TGB Group reserves the right to change the dimensions without previous notice.
Approved by: [Signature]

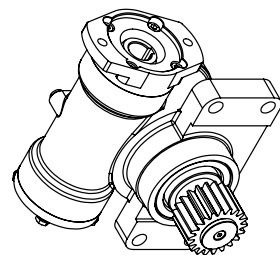
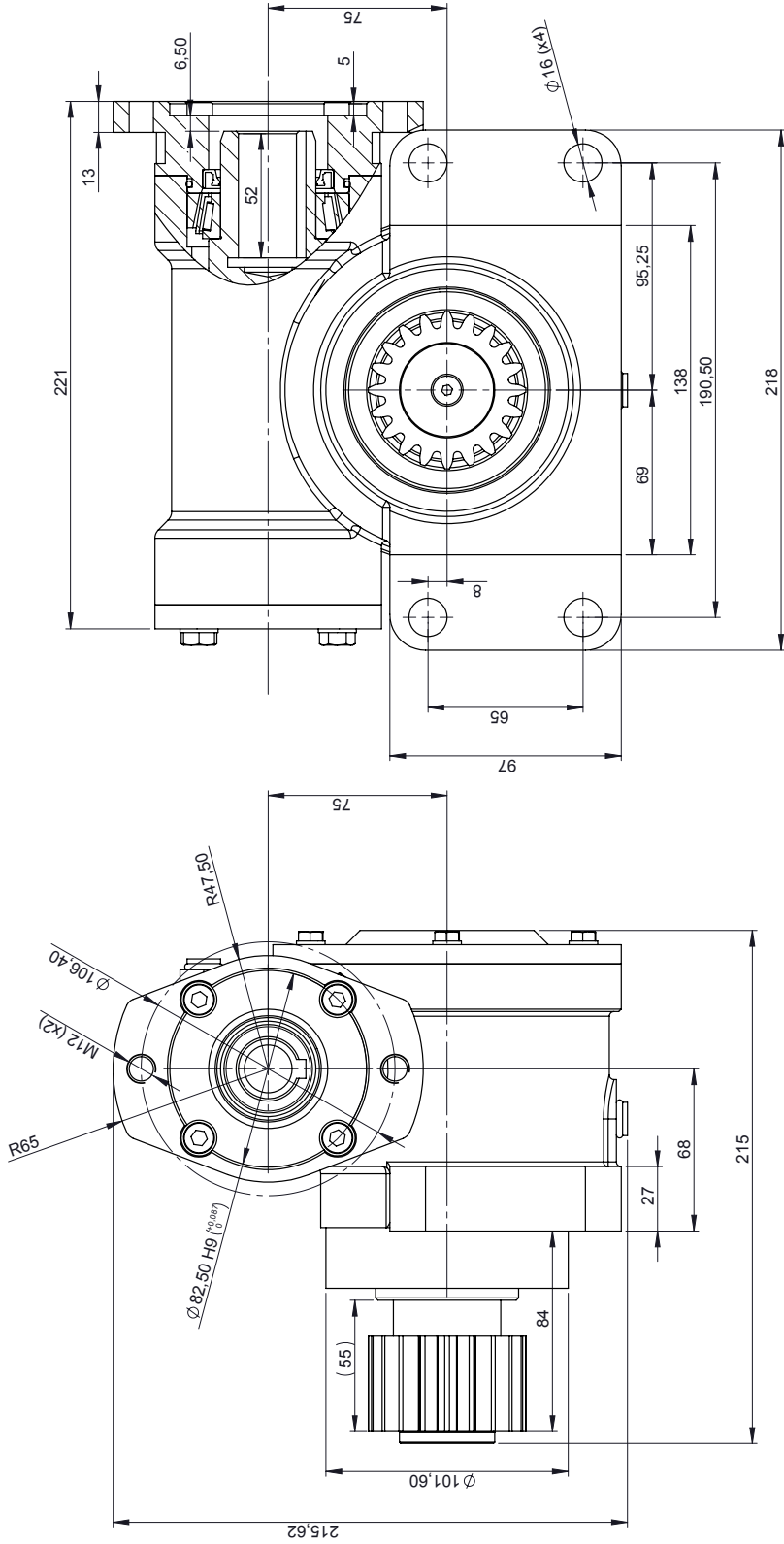
Weight [kg]: 598.25

NUM. PIECES: 1

Rev: B

SHEET: 1 of 1

ACCESSORIES - PINION DRIVE



Reference	TRP30-Z0-RM	Rev	A
Denomination	Sales Drawing	NUM. PIECES:	1
MATERIAL:	-	WEIGHT (kg):	20.77
SCALE:	-	SIZE:	-
Range of sizes		Unlabeled tolerance	
>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		

Units: mm	Units: mm

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

NOTES: ALL BLEW DRIVES ARE PRE-LUBRICATED.

ACCESSORIES

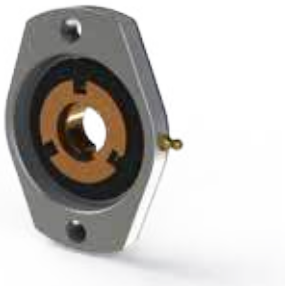
AC / DC / HYDRAULIC MOTORS



WORM GEARBOXES



BRAKE

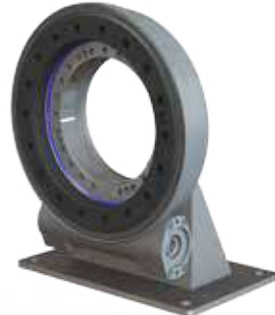


TGBgroup is able to provide complete solutions for different applications by supplying the drives with customized motorization or with brake.

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 <input type="checkbox"/> I <input type="checkbox"/> SD <input type="checkbox"/>			
Target slew drive					
Working position	Horizontal <input type="checkbox"/>	Vertical <input type="checkbox"/>			
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 <input type="checkbox"/> DC <input type="checkbox"/> Hydraulic <input type="checkbox"/> Comments:				
Pinion					
Limit dimensions			Width	Length	Height
Comments					

we *move*

Your movement solutions



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Phone: +31 297 268 942
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