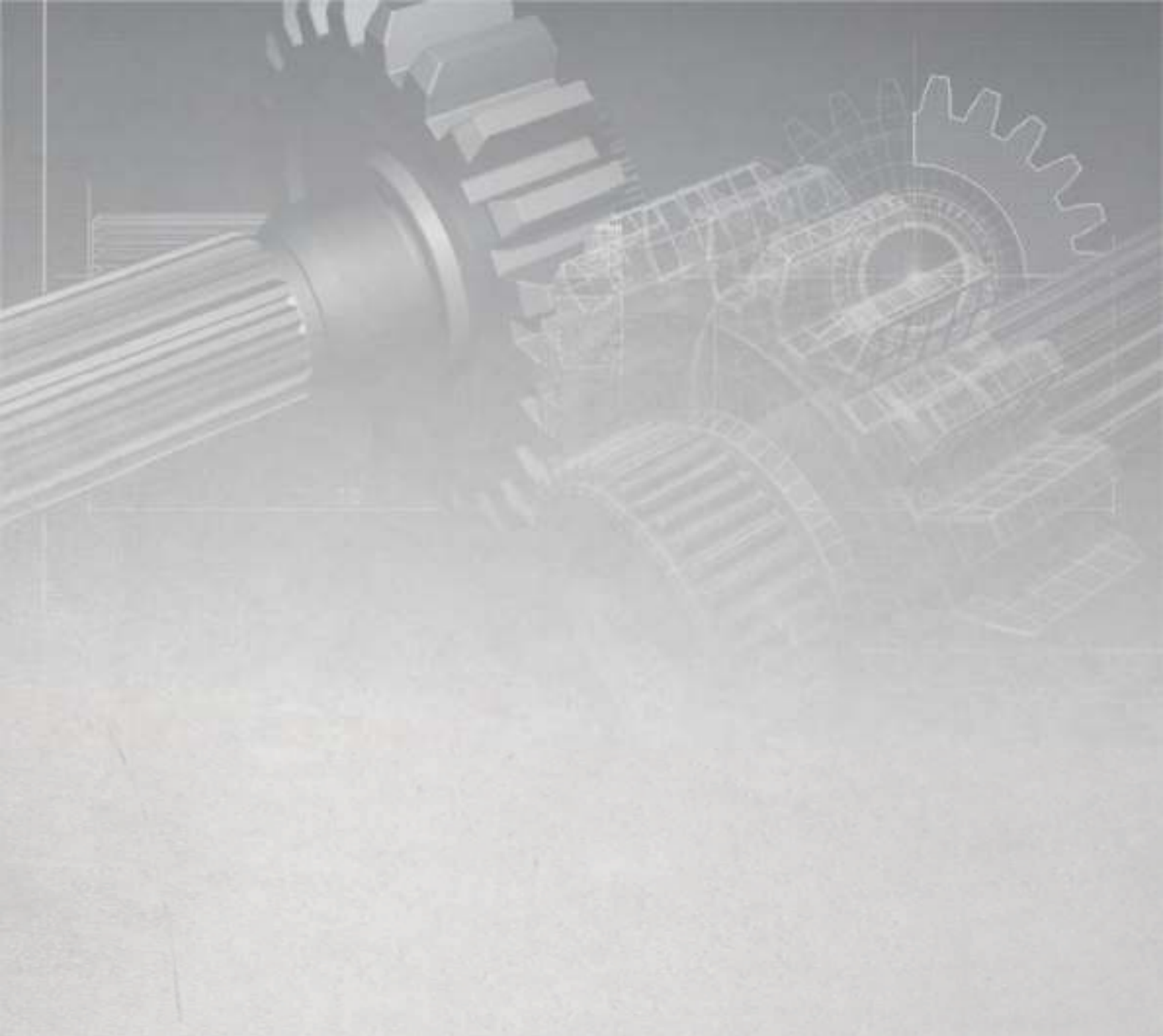


**PGR<sup>®</sup>**  
**DRIVE TECHNOLOGIES**

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for absolute  
solutions...



For absolute solutions...

**PGR<sup>®</sup>**  
**DRIVE TECHNOLOGIES**

# POLAT GROUP

The POLAT GROUP, which has subsidiaries in many sectors, began his first activities with the production of Olive Oil machines in1978.

## *The companies within the group ;*

### POLAT GROUP REDÜKTÖR SANAYİ VE TİCARET A.Ş.

Performs manufacturing of high-tech gear units for all sectors.



### NRW DRIVE TECHNOLOGIES

Performs manufacturing of high-tech gear units for all sectors.



### POLAT MAKİNA SANAYİ VE TİCARET A.Ş.

Produces industrial separators and decantors for Food, Mining and agriculture sectors. Besides, projected and manufactures, complete manufacturing facilities.



### AYKUTSAN OLUKLU MUKAVVA VE AMBALAJ SANAYİ A.Ş.

Performs desing and manufacturing for all carton packing requirements, as a solution partner, according to customer's request for different sectors.



### POLAT TARIM ÜRÜNLERİ A.Ş.

Obtained boutique-style olive oil under maximum hygienic conditions and filled to special concept bottles, according to customer needs and requirements, from most delicious olives and first class crops of the region.



### OYA FİDANCILIK A.Ş.

Getting advantage of favorable season conditions, it makes sales of seedlings after cultivating them which brings from all around the World.



### İMS İÇ VE DIŞ TİCARET A.Ş.

It is a sales and marketing company established in order to sell and market olive oil machinery and all kinds of food equipment in domestic markets and Northern Cyprus.



### POLAT ÇİFTLİĞİ A.Ş.

The most advanced research farm on olive and olive-oil of the regions. The life and productivity analysis of Olive trees which brought from various places of the World, are followed and reviewed on this Farm. The effects and consequences on crops are evaluating and researching together with regional universities and government agencies.



## KAIZEN

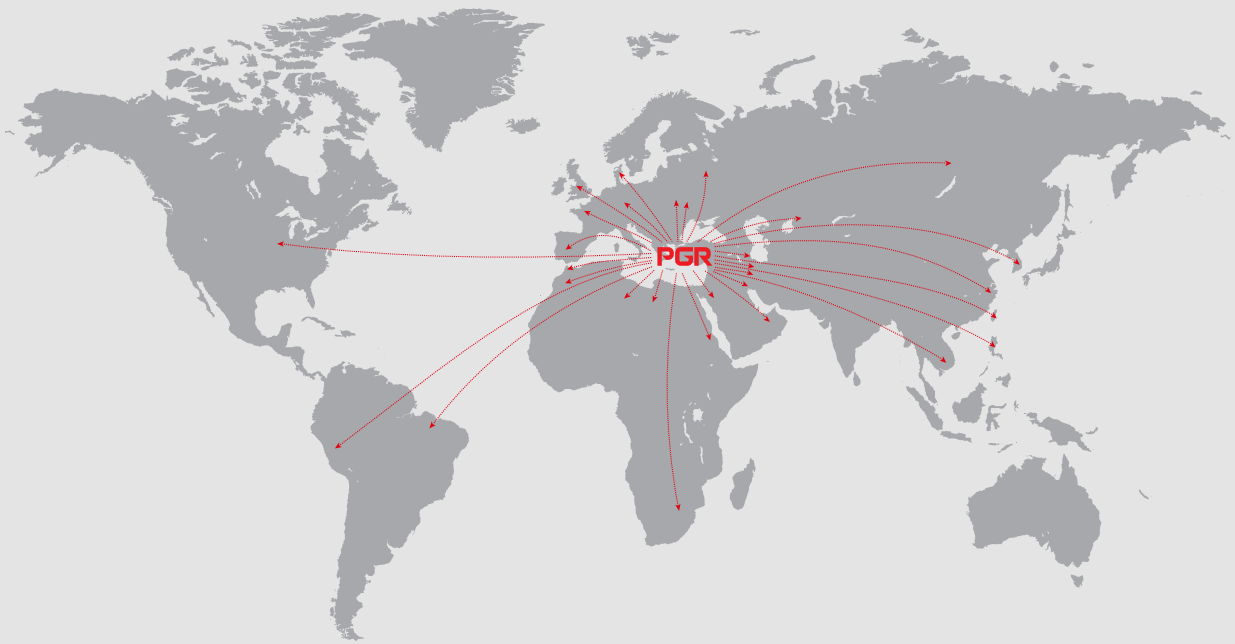
We are developing, our products and production technology with Kaizen philosophy day by day. Mistakes are prevented and avoided on the beginning, on each step of production process and customer's request, through applying the method of Poka-Yoke.

Polat Group Reduktor Family, has adopted the philosophy of Kaizen on every stage, starting from base employees upto the most senior members. And now, we are proud of, to present the most popular group companies to our valued customers on global market.

## WITH POKA-YOKE METHOD

We adopted the error preventing method, as a philosophy. We are evaluating your needs and requirements with great attention at each step of process, in order to provide you fantabulous services.

The way we started to walk with this belief, is now our way to the future and our light on this way is the support of our valuable customers.



## For absolute solutions...

PGR always continue to offer high qualified products and the best service with an extensive production capacity, to the local and global market.

We serve you the best, with our large and new-age production technology, our expert sales staff, pre-sales and after-sales services.





# Logistic

We are always ready for you.



In accordance with international trade standards; our gearboxes are processed from the manufacturing and painting stage to the logistic stage with high precision, and transferred to our logistic department.

Reducers are packaged carefully in order not to damage each other. According to our products sizes, they are prepared in our factory and delivered safely to domestic customers or overseas countries by means of all transportation facilities.





## Eco Friendly

We work for a greener  
World and the future.

As Polat Group Reducer Company, we are committed to leave a habitable environment for future generations. According to this committed, we are acting appropriately comply with national and international environmental standards.

# The Production Area



Samples of Production Processes and Machine









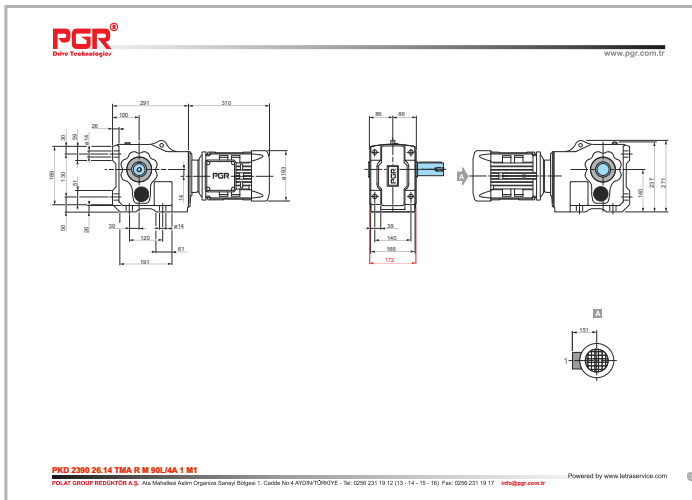
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I'm Feeling Lucky

# Pgr Configurator Software





## 2D/3D Drawings

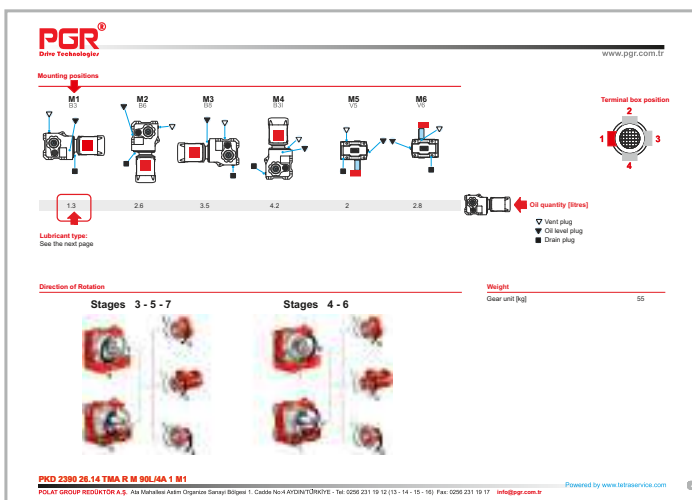
The PGR Web Site easily performs the operations with the help of a configurator on site such as easy selection of the desired gearbox, building up proposals and downloading of 2D and 3D drawings.

You have the possibility to choose 3D or 2D drawings and use at your projects. In the meantime all technical data and numerical values regarding this products are presented along with your choice. With this configurator, PGR is as close as your computer, access to PGR products is as fast as internet.



## Data Sheets

You can find informations on these data sheet pages of the gearboxes you have selected, such as the amount of oil to be added according to the mounting position, which oil should use according to weather conditions and how often the oil should be changed.



# PA/PF

## Helical Gear Units

This type of Reducers can be produced with 1,2,3,4, 5,6 stages. 11 case sizes ranging from 02-03 up to 102-103 are available. Helical-type reducers with 2 and 3 stages (from PA/PF 62-63 to PA/PF 102-103) are mounted coaxially to motor and output shaft.

Our 2-stage reducers are available from PA/PF 02 to 52. Our 2-stage reducers from PA/PF 02 to PA/PF 52 can be produced in 3-stage by increasing case resistance in exchange ratios. These 3-stage reducers are designed under the name of PA/PF 03 PA/PF 53.

PA/PF 62/63 and oversized helical gearboxes could be provide 2 or 3 stages in the same body. There are footed and flanged versions available for helical gear reducers.

Since flange is a single part with the case in flanged helical type reducers, there are not any connection bolts between case and flange. In this type of reducers, gears made of 8620 forged material and sphero materials are used for the cases. Thus, the case resistance and gear strength is raised up to maximum level.



- Power  
0.12 ... 160 kW
- Torque  
2 ... 26842 Nm
- Ratio  
1.24 ... 14373.83

Type	Torque [Nm]
PA/PF 02	111
PA/PF 03	134
PA/PF 12	215
PA/PF 13	250
PA/PF 22	447
PA/PF 23	451
PA/PF 32	840
PA/PF 33	851
PA/PF 42	1568
PA/PF 43	1626
PA/PF 52	2444
PA/PF 53	2833
PA/PF 62	3664
PA/PF 63	4831
PA/PF 72	4317
PA/PF 73	7362
PA/PF 82	8041
PA/PF 83	12125
PA/PF 92	12750
PA/PF 93	18572
PA/PF 102	17096
PA/PF 103	26842



# PD/PM

## Parallel Shaft Mounted Gear Units

Gear units with hollow shaft can be installed directly in the application area. As for body size, they are provided with 2-stage from PD/PM A02 up to 52. PD/PM 13...53 sized 3 stage gearboxes are provided by with a reducer assembled on the reducers up to PD/PM 12...52. For larger body dimensions PD/PM 62 to 112 and PD/PM 63 to 123 are provided with 2 and 3-stage in the same body. In block bodies, it is possible to apply 2 and 3-stage on the same body. Four different designs are available for mounting a parallel shaft gearboxes with a hollow shaft and output shaft.

- 1) B14 flanged,
- 2) B5 flanged,
- 3) Foot-mounted design for PD/PM A02 to C13 and PD/PM 92 and upper body dimensions,
- 4) Rubber buffer for torque arm.

In this type of reducers, gears made of 8620 forged material and sphero materials are used. Thus, the body resistance and gear strength is raised up to maximum level. Polat Hollow Shaft and Polat Solid Output Shaft series gearboxes are offered with 15 different body options and can provide a maximum of 97000 Nm with a power from 0.12kW to 200kW.



Type	Torque [Nm]
PD/PM A02	131
PD/PM B02	206
PD/PM 12	369
PD/PM C13	487
PD/PM 13	321
PD/PM 22	652
PD/PM 23	733
PD/PM 32	1160
PD/PM 33	1248
PD/PM 42	2324
PD/PM 43	2554
PD/PM 52	3604
PD/PM 53	4121
PD/PM 62	6031
PD/PM 63	7439
PD/PM 72	6896
PD/PM 73	9935
PD/PM 82	11900
PD/PM 83	15092
PD/PM 92	22870
PD/PM 93	34002
PD/PM 102	23496
PD/PM 103	46452
PD/PM 112	38532
PD/PM 113	88779
PD/PM 123	97399

- Power  
0.12 ... 200 kW
- Torque  
4 ... 97399 Nm
- Ratio  
4.02 ... 6601.35

# PKD

## Helical Bevel Gear Units

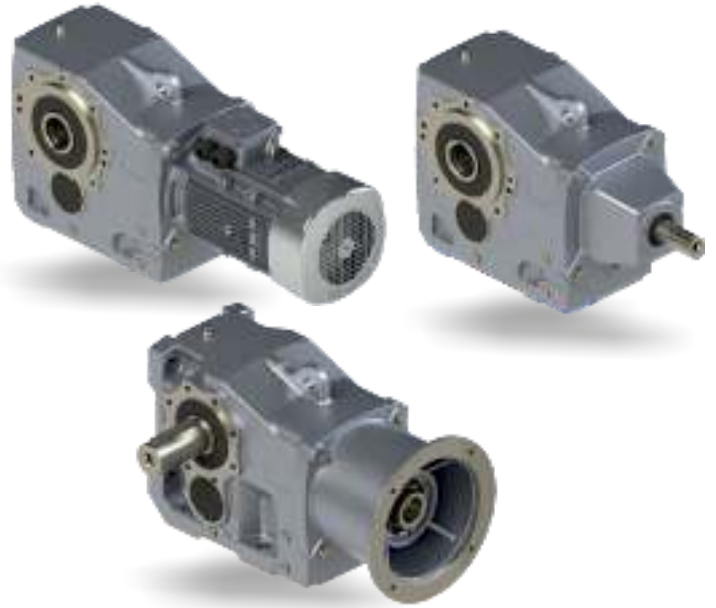
PGR PKD series are provided with various exchange ratios in 11 different body sizes. These bodies are divided into 2 main groups such as foot and flange mounted on the body. The PKD series gearboxes allows to users turning the movement 90 degrees by reducing the cycle of movement given to gearbox with the bevel gears in the structure of the reducer. Solid body design provides a solid body structure in PKD series and it does not include any connection element (screw etc.) that may result in axial dislocation.

Casted body minimizes the oscillation effect. According to the request's of the users, there is a high efficiency of about 94-96% provided in the output in both directions.

The gears processed on the latest system CNC machines in our factory, meets today's international standards with high manufacturing tolerance. Our gears made of casted materials are treated with processes such as heat treatment, cementation and honing, therefore quite and competent reducers are produced. Besides, secure working conditions are ensured. PKD series reducers can be used in all types of industrial application.

Our standard products with motor, W input shaft, IEC adapter and PAM B5 / B14 adapter that we supply are;

- With Hollow Shaft or Solid Shaft Output
- With Hollow Shaft with shrink disc
- Torque Arm (on in body mounted)
- B5 or B14 flanged
- DIN 5480 spline shaft



- Power  
0.12 ... 200 kW
- Torque  
3 ... 64405 Nm
- Ratio  
3.85 ... 13432.68

Type	Torque [Nm]
PKD A 0290	104
PKD B 0290	144
PKD C 1290	286
PKD F 4290	509
PKD H 5290	807
PKD 1390	519
PKD 1490	500
PKD G 1390	781
PKD G 1490	763
PKD 2390	1122
PKD 2490	975
PKD 3390	2028
PKD 3490	1995
PKD 4390	3549
PKD 4490	3535
PKD 5390	6384
PKD 5490	6117
PKD 6390	10925
PKD 7390	11406
PKD 8390	17319
PKD G 8390	26030
PKD 9390	42375
PKD G 9390	64405

# PSH Series

## Helical - Worm Gear Units

Helical-worm gearboxes are gear reducers with an angle of 90 ° between the motor shaft and the output shaft. For this reason, it grants beneficial properties in applications (system). All helical-worm gearboxes mentioned in this catalog are 2 and 3 stages.

The helical gears of the helical-worm gearboxes are made of forged 8620 steel and the gears are hardened. Gear geometries and corrections can be optimized to achieve precision shaft alignment, high load capacity, long service life and low noise.

Worm leveled gear is not only hardened, but also made of hardened special bronze wheel and fixed firmly upon the shaft. This combination guarantees a long service life. Helical-worm gearboxes produced in modern CNC machines are delivered to our esteemed customers with the highest product quality by our regular process controls.

For high durability of helical-worm gearbox, they are filled with high quality polyglycol based synthetic oil at the factory. This synthetic oil provides the long servicelife and high efficiency by lowering the friction a minimum.

The helical-worm gearboxes are supplied in two stages from PSH 2040 to PSH 2125. These gearboxes could be offered in 3 stages by assembling reductor for high gear ratios. These are provided in total of 5 body dimensions ranging from PSH 3050 to PSH 3125. They can be provided with Foot mounted and case mounted connection positions. Both connection positions can be with Solid Shaft and Hollow Shaft outputs.



- Power  
0.12 ... 15 kW
- Torque  
3 ... 3596 Nm
- Ratio  
4.40 ... 7095.12

Type	Torque [Nm]
PSH 2040	122
PSH 2050	235
PSH 3050	247
PSH 2063	475
PSH 3063	484
PSH 2080	959
PSH 3080	968
PSH 2100	1804
PSH 3100	1722
PSH 2125	2968
PSH 3125	3596

# PL/PLB Series

## Planetary Gear Units

In power transmission field, using planet gear units provides compactness, structural simplicity and production reliability.

PL/PLB Planetary gear units are made of 62% steel, approximately %33 cast iron and lower rates of aluminum, copper, rubber and rice. These rates vary depending on product configuration.

PL planet gear units are divided into 21 main groups based on various output moment values ranging from 460 Nm and 850000 Nm to be transferred from output shaft.

Essentially Planetary Gear Units, the modular design of the product also allows the use of a wide range of IEC Adapters for electric motors or hydraulic motors connection, allowing the connection of bevel gears, worm gears, hydraulic brakes and various input shafts to planetary units.

Another advantage of planet gear units is the possibility to mount various stages of different sizes serially in order to allow usage of various exchange rates. Exchange rates for planet gear units can vary up to 3:1 to 7:1 in single stage gear units, and up to 10,000:1 rate in 5-stage.

Wide options for the output shafts and flanges can simplify assembly operation of reducer unit in industrial machines or industrial facilities.



- Power  
0.12 ... 160 kW
- Torque  
460 ... 850000 Nm
- Ratio  
3.56 ... 9793

Type	Torque [Nm]
PL/PLB 1000	1120
PL/PLB 1600	1730
PL/PLB 2500	3590
PL/PLB 5000	5210
PL/PLB 7000	7160
PL/PLB 10000	12450
PL/PLB 16000	18380
PL/PLB 18000	18380
PL/PLB 25000	31380
PL/PLB 30000	31380
PL/PLB 35000	38250
PL/PLB 50000	62020
PL/PLB 65000	70700
PL/PLB 90000	100980
PL/PLB 130000	166600
PL/PLB 170000	216750
PL/PLB 220000	242900
PL/PLB 250000	294400
PL/PLB 300000	315900
PL/PLB 380000	461700
PL/PLB 460000	578700
PL/PLB 550000	741700
PL/PLB 620000	850000



# PH/PB Series

## Industrial Type Gear Units

PGR industrial type reducers are modified in accordance with single body design with approved quality. This unique body concept refers to the most perfect tenderness, stiffness and durability.

Thanks to single body design, wide bearings that last longer are used. Furthermore, thanks to seals resistant to wearing, leakproofing is at the highest level.

Along with increased power capacity, higher operational reliability is ensured.

PGR industrial type reducers are available in two types such as parallel shaft helical geared (PH) and bevel-helical geared (PB). Both can be provided in horizontal and vertical mounting position.

The Body Cases are designed as 2, 3, 4 stages and it has been presented to the market in 9 different bodies for now.



Type	Torque [Nm]
PH/PB 42	7000
PH/PB 52	11760
PH/PB 62	15120
PH/PB 72	21315
PH/PB 82	26880
PH/PB 92	35385
PH/PB 102	44310
PH/PB 112	62265
PH/PB 122	77490
PH/PB 132	90300
PH/PB 142	112350
PH/PB 152	150150
PH/PB 162	168000
PH/PB 172	204750
PH/PB 182	241500
PH/PB 192	306600

- Power  
3.5 ... 4630 kW
- Torque  
2350 ... 479400 Nm
- Ratio  
1.25 ... 459.50

Type	Torque [Nm]
PB 43	7035
PH/PB 53-54	12180
PH/PB 63-64	16275
PH/PB 73-74	22785
PH/PB 83-84	28560
PH/PB 93-94	37485
PH/PB 103-104	46410
PH/PB 113-114	66675
PH/PB 123-124	81900
PH/PB 133-134	95250
PH/PB 143-144	118650
PH/PB 153-154	160650
PH/PB 163-164	181650
PH/PB 173-174	210000
PH/PB 183-184	252000
PH/PB 193-194	315000

# A/F Series

## Helical Gear Units

A/F Series Reducers are manufactured in 10 body dimensions with foot mounted and flange mounted. Body material is sphero and gears are manufactured from 8620 forged steel and damage in maximum moments is avoided.

Compared to the PA and PF series these type of gearboxes' shaft diameters, length and foot connection measurements are different.

According to body size, 4 - 3 - 2 kinds of flanges can connect at Flange types of these gearboxes. The flanges of these types of gearboxes are designed as modular, rather than as monolithic. Motors can be connected from 0.12 kW to 45 kW to these types of gearboxes. In addition, these types of gearboxes could provide with W input shaft, PAM B5/B14 and IEC adaptors.



- Power  
0.09 ... 45 kW
- Torque  
2 ... 8554 Nm
- Ratio  
1.26 ... 282.17

Type	Torque [Nm]
A/F 202	71
A/F 202 G	115
A/F 252	224
A/F 253	222
A/F 302	304
A/F 303	404
A/F 352	532
A/F 353	555
A/F 402	907
A/F 403	947
A/F 502	1702
A/F 503	1911
A/F 602	3372
A/F 603	3788
A/F 702	5250
A/F 703	5345
A/F 902	8000
A/F 903	8554

# D/M Series

## Parallel Shaft Mounted Gear Units

Parallel shaft-mounted gearboxes (D), Parallel axle-mounted gearboxes (M) Hollow Shaft gearboxes; are all adapted according to the international load standards.

The designs are available that could work at heavy conditions and there is an opportunity of selection according to motorized, with brake and motorized in addition to service motors which is giving several motions. The housings are moulded with integrated moulding system, for easy cleaning the surfaces are mounted with polished, corrected with Niemann calculations, roller bearings were selected aiming to work long-term and unproblematic, as a leaktightness tool, high quality seal is used.

The front side of gearbox is monolith to the case, the exit cover is not available which causes oil leakage or geared-axial leakage.



- Power  
0.09 ... 30 kW
- Torque  
398 ... 3296 Nm
- Ratio  
7.17 ... 394.32

Type	Torque [Nm]
D/M 302	398
D/M 303	556
D/M 352	674
D/M 353	675
D/M 402	1087
D/M 403	1100
D/M 502	1714
D/M 503	1785
D/M 602	3285
D/M 603	3296
D/M 702	-
D/M 703	-
D/M 902	-
D/M 903	-

# K Series

## Helical Bevel Gear Units

Foot-mounted, helical-bevelled gear gearboxes: (K,DA-TMA-ÇMA); case mounted, helical bevelled gearboxes (K,DG-TMG-ÇMG).

Robust moulding case with solid structure is adapted according to international load standards. The housings were moulded with integrated moulding system. Designs that could work under heavy conditions are available.

There are several options to the likes of motorized, with brake and motorized, service motors that could create several options, for easy cleaning the surfaces are designed with polished, corrected with. Niemann roller bearings were selected aiming to work long-term and unproblematic.

As an anti-leakage tool, the high quality seal is used, the output shaft side is monolith to the case, the exit cover having with oil leakage is available. It enables high moment at 12 different case sizes.



- Power  
0.12 ... 90 kW
- Torque  
656 ... 13842 Nm
- Ratio  
5.74 ... 183.27

Type	Torque [Nm]
K 35390	656
K 40390	926
K 50390	1893
K 60390	3768
K 70390	5375
K 90390	8850
K 100390	13842



# PMRV/PRV PLUS+ PLUS+

## Worm Gear Units

There are 2 types available in worm screwed reducers. Standard B5 or B14 flanged, motor coupled (PMRV Plus) and shaft inlet, non-motorized (PRV Plus).

In PMRV Plus / PRV Plus reducers, there is 90° angle between input shaft and output shaft. Due to both this characteristic feature and the structure of the wheel gear and worm gear, gearboxes has autoblock specification.

Worm gear reducer housings are produced by aluminium die casting 030...090 body types and as for 110...150 body types from GG20-25 gray cast iron. Worm screws are manufactured from cementation steel in ZI form and hardened with heat treatment.

Despite of these types of gearbox's low efficiency compared to helical gear reducers, they are preferred in many sectors due to its light weight and high mechanical strength, its wide range of mounting possibilities and its high ratio options in small body sizes.



- Power  
0.06 ... 15 kW
- Torque  
1.4 ... 1997 Nm
- Ratio  
5.00 ... 5000.00

Type	Torque [Nm]
PMRV/PRV 030 PLUS+ PLUS+	24
PMRV/PRV 040 PLUS+ PLUS+	54
PMRV/PRV 050 PLUS+ PLUS+	91
PMRV/PRV 063 PLUS+ PLUS+	249
PMRV/PRV 075 PLUS+ PLUS+	374
PMRV/PRV 090 PLUS+ PLUS+	557
PMRV/PRV 105 PLUS+ PLUS+	782
PMRV/PRV 110 PLUS+ PLUS+	980
PMRV/PRV 130 PLUS+ PLUS+	1463
PMRV/PRV 150 PLUS+ PLUS+	1997

# P Series

## Shaft - Mounted Helical Gear Units

P series gear units could be manufactured to 12 different body sizes from P1 to P12. These are the fast shaft mounted gearboxes. This types can be easily installed and dismantled by mounting directly on the drive shaft. Motion is achieved by belt-pulley, chain gear etc. They can be manufactured with backstop, without backstop or shrick disk.

A Torque Arm could also be supplied for fixing the gear unit. Body material from P1 to P4 is GG22-25, from P5 to P12 is GGG40 -50 and they have been designed with care and attention to feature esthetics and durability of these gearboxes.

Roller bearings are processed in CNC machines by considering all sensitivities. Long working life is taken into consideration in selection of bearings.

The gears are manufactured from 21NiCrMo2 (8620 SAE) quality, forged material and subjected to isothermal annealing after forged process. Cementation process is applied based on hardness depth and 58-60 HRC hardness is ensured. Our gears are subjected to scraper and profile grinding processes. They have a structure that allows maximum load and torque output of highest efficiency. With wider gear surface, maximum torque is achieved.

They are manufactured by 1040-1050 (SAE) quality materials and their overtaking tolerances are determined according to norms. Our circuit rates are 5/1-13/1-20/1, accordingly by means of using belt pulley drive, 10 rpm and 400 rpm output revolution can be achieved.

- Power  
0.52 ... 272 kW
- Torque  
428 ... 42700 Nm
- Ratio  
5 ... 20



Type	Torque [Nm]
P1	497
P2	783
P3	1240
P4	1815
P5	3140
P6	4500
P7	6950
P8	9445
P9	12400
P10	17600
P11	24460
P12	42700

# Pt/A Series

## Shaft - Mounted Helical Gear Units

Pt/A series gearboxes are shaft-mounted speed reducers like P series. The difference from P-Series are designed as round.

They have been designed with care and attention to feature esthetics and durability of these gearboxes. Roller bearings are processed in CNC machines by considering all sensitivities.

This types can be easily installed and dismantled by mounting directly on the drive shaft. Motion is achieved by belt-pulley, chain gear etc. They can manufactured with backstop or without backstop. Torque Arm is also available for fixing this type gear units.

By considering wide power and RPM ranges, also various service factor dimensions, a wide usage area and facility are achieved. Long working life is taken into consideration in selection of bearings.

Gears are made of 21 NiCrMo2 (8620 SAE) quality materials and subjected to isothermal heat treatment after casting. Cementation process is applied based on hardness depth and 58-60HRC hardness is ensured. Our gears are subjected to scraper and profile grinding processes.

They have a structure that allows maximum load and torque output of highest efficiency. With wider gear surface, maximum torque is achieved. They are manufactured by 1040-1050 (SAE) quality materials and their overtaking tolerances are determined according to norms.



- Power  
0.8 ... 237 kW
- Torque  
144 ... 16800 Nm
- Ratio  
5 ... 33.2

Type	Torque [Nm]
Pt/A 30	160
Pt/A 35	420
Pt/A 40	950
Pt/A 45	1420
Pt/A 50	2200
Pt/A 60	3680
Pt/A 70	5150
Pt/A 80	6930
Pt/A 100	11030
Pt/A 125	16800

# PCS Series

## Hoist Drive

Having the most powerful production technological area in Turkey with its developing specialist staff, Polat Group continues to improve Reducer production capacity and to maintain development without making concessions to its quality understanding.

As PGR, we have achieved our claim in crane sector by providing a complete solution to our customers by means of adding our experience in movement reducers to PCS (Polat Crane System) type reducers. Our Company has started mass production with new designs in crane lifting class.

PCS type lifting reducers produced specifically for lifting operations are;

- With lifting capacity ranging from 1.6 ton to 50 tons,
- In accordance with FEM-ISO standards,
- With double speed (2-12 pole) or frequency inverter motors used,
- With low wear and silent operation,
- With aluminium and GGG40-GGG50 spherocasted options, therefore having a strong structure.

In case of any contrary situations, the maximum power consumption in the system during lifting occurs. Substantial parts of wear or breaks are observed during this application.

Elements making up these reducers should be calculated according to these overloads. First of all, the gearbox selection at the lifting applications contains crucial subjects that should be considered.



For lifting applications, reducers;

- Specially produced
- With specific load capacities,
- Suitable to lifting standards should be selected.

Motors to be used in this field are reducers with double speed and single-speed electromagnetic brake motors. Thanks to brake, it is possible to stop the load in desired position.

- **Lifting Speed**  
0.4 ... 8.1 m/dk
- **Power**  
0.37 ... 37 kW
- **Load Capacity**  
3 - 5 - 10 - 20 - 25  
50 ton
- **Ratio**  
39.56 ... 215.80

Type	Torque [Nm]
PCS 3	1750
PCS 5	3750
PCS 10	11700
PCS 20	20500
PCS 25	26300
PCS 50	35100



# PEX (EXTRUDER) Series

## Single / Twin -screw

As a Polat Group Reducer, we already launched of producing extruder gearboxes. PEX series is designed for single screwed extruders. Can be supplied at 12 different casting sizes with 2 or 3 staged. At 2-staged, gearboxes have the ratios from 8 to 30 and at 3-staged, gearboxes have the ratios between 10 to 50.

The gearbox ratios for 2 and 3 stages are taking part between these given values. Because of having a broad distance between input and output shafts, the electric motor and drum could easily be mounted. At these gearboxes with helical geared type, by using Ç8620 material, the gear manufacturing has been making.

In case the housings have been producing from grey graphitic Gg25 moulding. The bearings which have been using for the axial load of extruder screw are 'E' series 294.



- Power  
7.5 ... 300 kW
- Torque  
1120 ... 160.000 Nm
- Ratio  
8 ... 50

Ürün Tipi	Moment [Nm]
PEX 112 3s	2080
PEX 125 4s	4270
PEX 140 4s	6400
PEX 160 4s	8640
PEX 180 4s	13280
PEX 200 4s	20800
PEX 225 4s	30720
PEX 250 4s	40100
PEX 280 4s	56000
PEX 320 4s	92000
PEX 360 4s	110400
PEX 400 4s	160800

# PX-PPC Series

## The Gearmotors For Poultry Farm

As a PGR, we continue to make innovations. By extending our product range, we manufactured PX 031, PPC 071-080 gearboxes. These gearboxes which named Feeding Gearboxes are specifically designed for feeding systems which are going to be used in poultry-house animal ranches.

They are single-staged. All the gearbox housings are pressurized aluminium-alloy castings and manufactured suitable to the of working at under heavy conditions. The gears are helical and produced from cementation steel, they were hardened. The output shafts are produced from tempered steel and are hardened too.

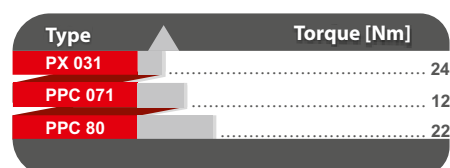
The bearings are calculated according to 20.000 working hours. Upon the customer request, the specific amendments could be made with presenting low-cost solutions.

Our PX 031, PPC 071-080 gearboxes, are both presented without motor PAM B5/B14 flanges and also with motorized B5/B14 flange. Aiming to respond to the specific demands of each customers, at the output flanges and output shafts, broad range of selection opportunities are offered.

Our PX 031, PPC 071-080 gearboxes are dispatched with synthetic oil. The oil amount inside of it, is suitable to every mounting positions. During the placing an order, emphasizing a mounting position is not necessary.



<b>PX 031</b>	<b>PPC 071 - 080</b>
- Power 0.45 ... 1.10 kW	- Power 0.55 ... 1.10 kW
- Torque 19 ... 24 Nm	- Torque 12 ... 22 Nm
- Ratio 2.55 ... 7.87	- Ratio 3.00



# PYK Series

## Feeder Mixer Drives for Horizontal and Vertical

To the growing of animal, aiming to increase production, nutritive feed is highly needed. Mixing the components efficiently which creates nutritive feeds and to crumble as an intended size, the feed-mixing machines are exercised. Efficient mixing process is crucial step for the quality feed production.

At feed mixing machines, during the crumbling and mixing, variable and sudden forces are necessary. This high power and need of resistance could only be achieved by using the transmitting elements which are well designed that could work under heavy conditions and guarantee the quality with successfully completed production processes.

PGR, with it's own modular planet gearboxes that specifically designed for all capacities of horizontal and vertical feed mixing machines, having broad ratio range, is presented economic solutions and these gearboxes are modified to answer the requirements of animal feed mixers who work in agricultural industry.

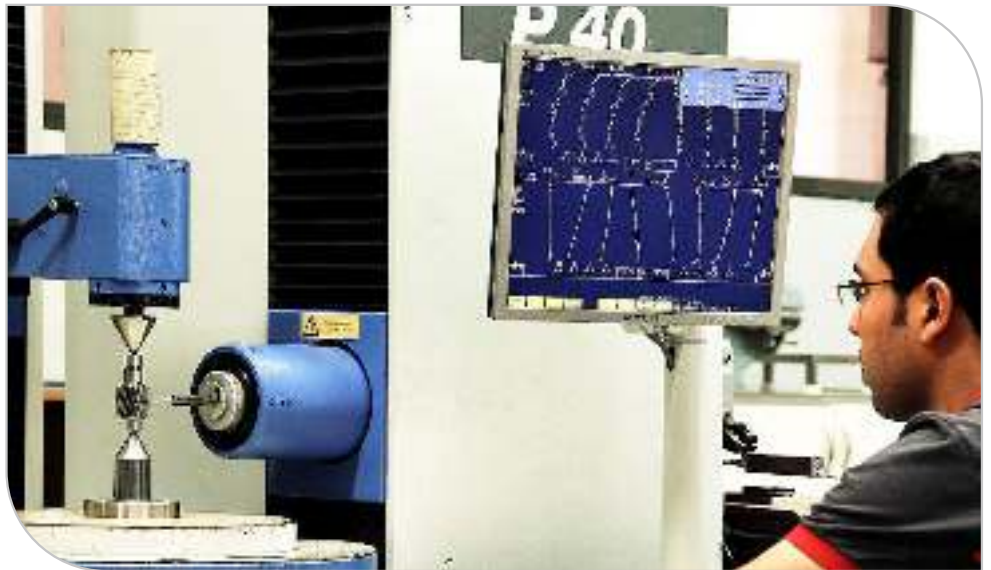


Horizontal Feed Mixing Gearboxes	
Type	Torque [Nm]
PYK 5002	5000
PYK 7002	7000
PYK 10002	10000
PYK 16002	16000
PYK 18002	18000
PYK 25002	25000
PYK 30002	30000
PYK 35002	35000

- Capacity  
0,5 ... 20 m<sup>3</sup>

Vertical Feed Mixing Gearboxes		
Type	Capacity	Torque [Nm]
PYK 1602	0,5 ... 1,5 m <sup>3</sup>	3500
PYK 5002	2 ... 4 m <sup>3</sup>	7000
PYK 72	2 ... 4 m <sup>3</sup>	9800
PYK 18002-A	5 ... 8 m <sup>3</sup>	24000
PYK 18002-B	10 ... 16 m <sup>3</sup>	32000
PYK 25002	18 ... 20 m <sup>3</sup>	48000
PYK 130	16 m <sup>3</sup> 'e kadar	-

# Quality Control



**Our commitment to the global market;  
the service with compromising quality.**

Inside of our department, dimensional measurements, measuring of gears, sampling, polishing and hardness measurement have been making. Confirmation for the each of following process, with getting presupposition datas from quality control department, the mistake avoiding are purposed.

The counters of quality control department are realized their intermediate inspections. Our personnels who have been showing the same sensitivity in every process, control all the production steps. They take the customer satisfaction under warranty since the first step till to the last one.

# Our team is always ready to serve you

## Connection To Pgr...

You can contact our sales team of PGR Turkey and Germany in 7 days for 24 hours.

You could find out the updated fair schedule at the link of [www.pgr.com.tr](http://www.pgr.com.tr) and may contact by phone.



**PGR® TEAM**

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For PGR GmbH Sales Team :  
sales@pgrgermany.de  
+49 (0) 2382 855 70 10





# for absolute solutions...



**PGR<sup>®</sup> DRIVE TECHNOLOGIES**

DEUTSCHLAND

PGR GmbH Company provides services in Ahlen, Nordrhein-Westfalen in Germany. Establishing its first facility in Europe in order to reach you faster and bring you our products, PGR GmbH carries out sales, logistics and after-sales service activities in a 10.000m<sup>2</sup> production field.

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[www.nrwdrivetechnologies.com](http://www.nrwdrivetechnologies.com)

# Certificates



ISO 9001 : 2008



ISO 9001 : 2008



Tehlikeli Madde Faaliyet Belgesi



TSEK



ISO IQ EK



ISO IQ EK

# Certificates



ISO 18001



ISO 14001



Trademark Registration Certificate



Certificate of Service Competence



Germanischer Lloyd



PL/PLB\_CE

# Certificates



PH/PB\_CE



PA/PF\_CE



PRV/PMRV\_CE



PMRV/NMRV PLUS\_CE



PD/PM\_CE



PKD\_CE



PCS\_CE



PSH\_CE



A/F\_CE

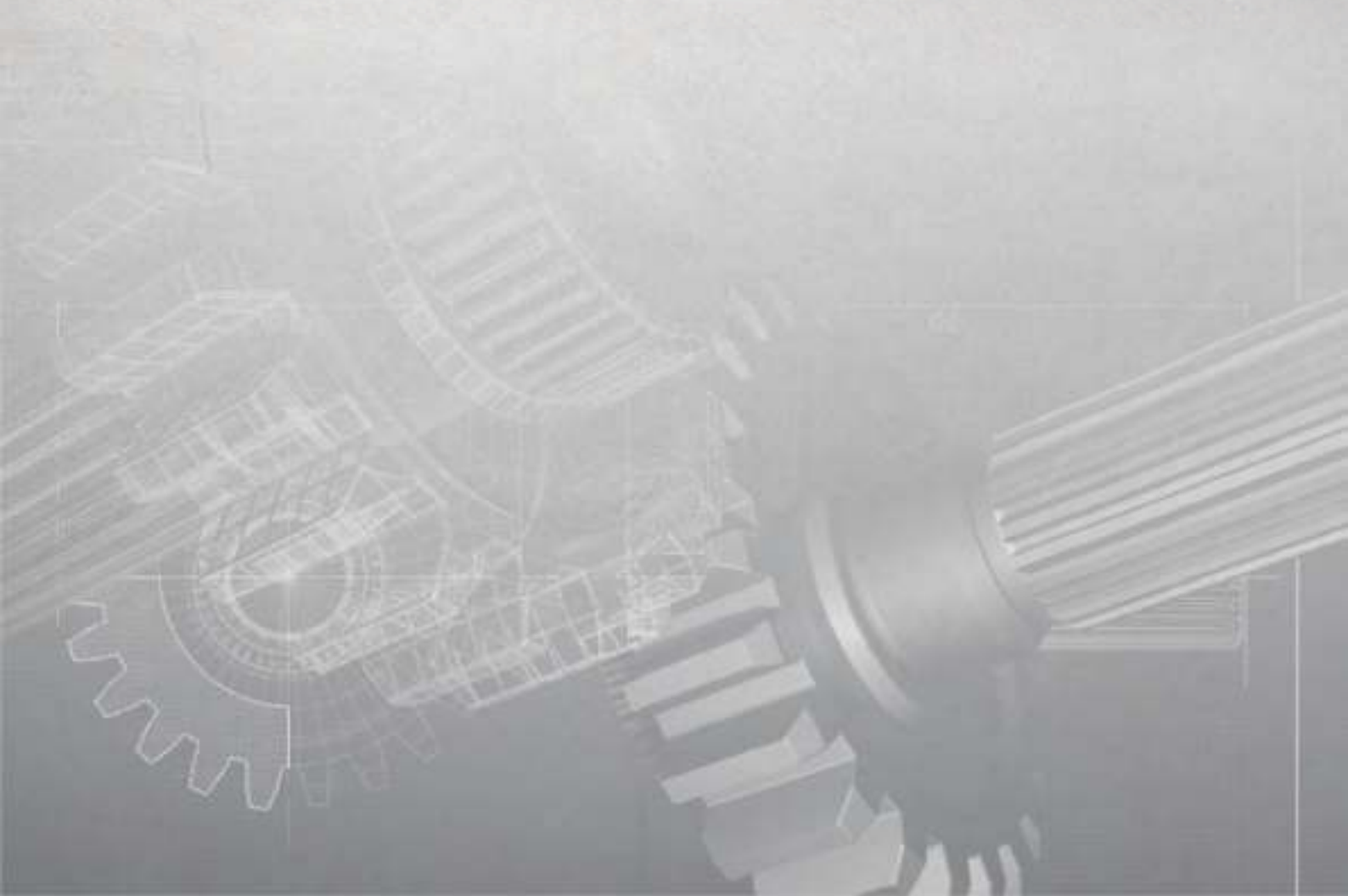






**PGR<sup>®</sup>**  
**DRIVE TECHNOLOGIES**

for absolute solutions...



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