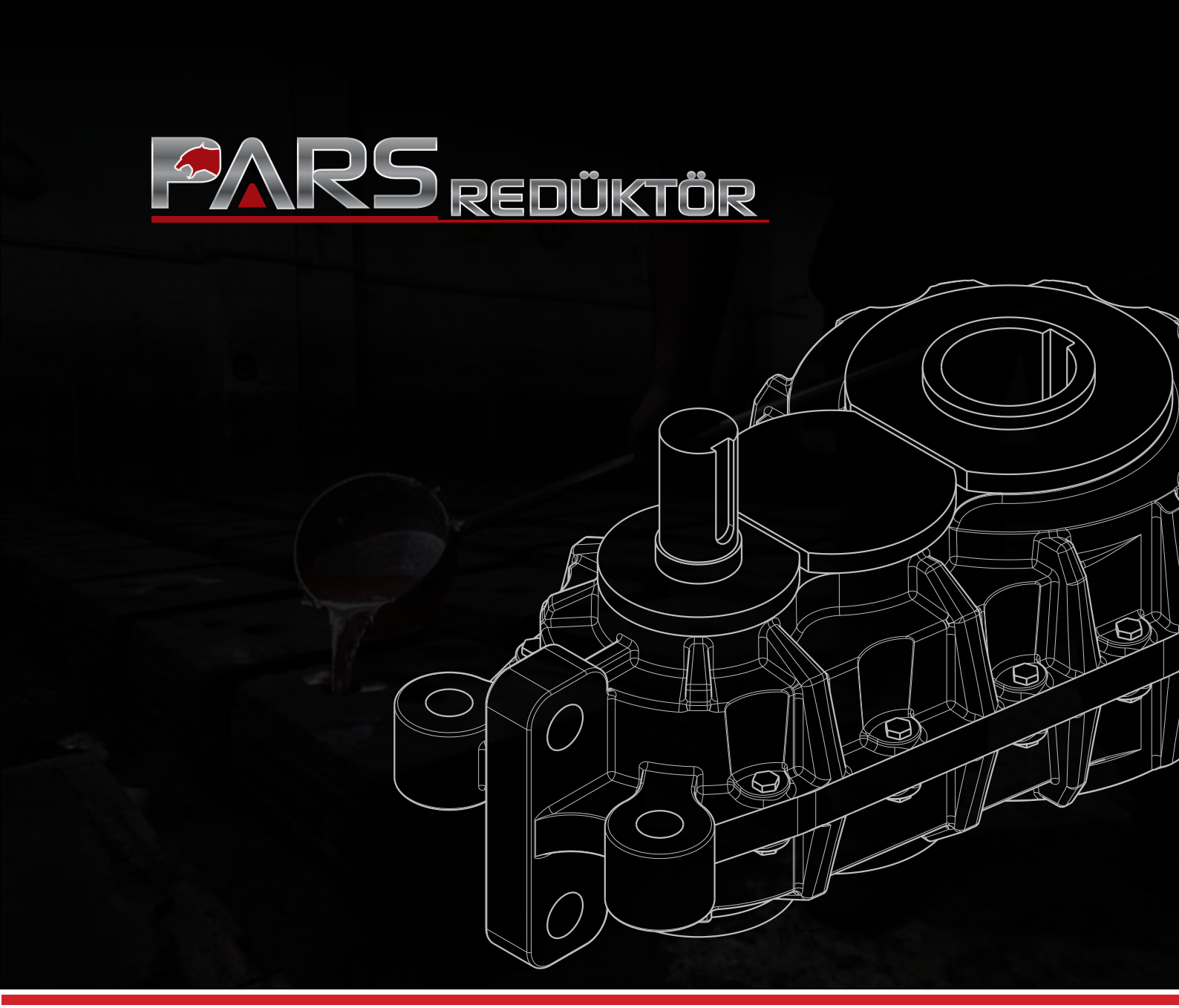
PARS REDÜKTÖR



REDUCTOR & GEAR MANUFACTURING

PRODUCT CATALOGUE






PARS REDÜKTÖR

About Us

Founded in 2007, PARS MAKSAN operated in the fields of machining, aluminum casting and model creating until 2009. In 2009, we added the production of conveyor belt reductors to our products range with the brand of PARS REDUCTOR brand.

PARS MAKSAN also produces helical gears and standard gear reductors as well as special reductors, if demended, in the products range.

PARS MAKSAN aims to both to be more productive and meet customer satisfaction by applying the latest technological opportunities and high quality production techniques with its young and dynamic team.

PARS MAKSAN alson aims for long-term association with its customers by integrity and high quality, durable and long-lasting products at reasonable prices.

What is Reductor?

A reductors, which is a component of the parallel gear series of gearbox assemblies together with gearboxes, is systems structurally made up of components placed in the body such as gear pulley, miller and bearing. Its academic definition is closed gear assembly designed to reduce the high rotational speeds of electric motors to the rotational speeds required for the machines

Types of Reductors?

Nowadays, reductors are produced in standard sizes by various companies and are supplied to the market. Factors such as conversion ratio, efficiency, size and weight must be taken into account when selecting type of reductor. reductors are Classified as follows;

1) According to the number of stages, reductors with 1, 2 and more stages,
2) According to the types of gears; reductors with bevel gears, cylindrical gears, worm gears and reductors in which more than one type are used.

Points to Consider When Using a Reductor

1. An upper body should be selected for high inclined tapes.
2. An upper body should be selected where it is necessary to take off very quickly.
3. Reductor connection strainer should be done very well.
4. Reductor connection strainer should be adjusted and the reductor sholud be able to flex during operation.
5. Reductor's drive pulley should not be operated in stress with engine.
6. Since the reductor body is alloyed, it sholud be protected against excessive extreme bumps that may come from the outside.




GENERAL PRODUCTION INFORMATION

Gears

Helical forehead gears and helical bevel gears are made of alloyed cementited steel. After chip removal processes of the gears (lathe, threading, debarring and keyway) is done, heating treatment is carried out in such a way that the cementation depth and the surface hardness of 58-60 HRC are ensured for the gear module. After heating treatment, roller bearings of threaded shafts, threaded holes and thread profiles are grinded. The profile shifts in the gears prevent lower cuts, especially in pinion gears. The grinding of the thread profiles allows the reductor to operate silently.

Shafts

The input shaft of reductors is usually a pinion gear shaft. In this case, the input gearwheel material 8620 is a cemen tited steel.

Bearings

In the bearings of the reductor shaft and the gears, conical roller bearings or cylindrical roller bearings are used.

Bodies

Reductor bodies are aluminum casting in Etial 160-171 quality.

There are grease fill-emptying plugs, grease level indicator and bleeder plug on the body.

Connectiong the Shafts

For the connecting with clutching, shaft axes should be very well adjusted; minimizing the angular and linear deviations between axes of shaft allows the system to operate without vibrations and extend the life of the shalf, the bearings and clutch. For the connecting with gears, it is necessary for the shafts to be parallel to each other and to be clutched each other along the whole gear surface. It is suitable to connecting reductor's's inputs to engine with belt-pulley systems, elastic clutches, hydraulic or electromagnetic lamellar clutches. Coaxiallity of shafts for connecting with clutch and parallelism of shafts to each other for belt-pulley systems is assesial for the long-life of reductor shaft bearings and the vibration-free operation of the system.

Efficiency

In principle, there is a power loss of 1.5% in each step of the flat and helical gear reductor. Power loss in Helical bevel gear reductor's is between 2.5-3% for each step. The power loss of the endless screw reductor is from 5% to 50%, depending on the number of screw holes, the screw elevation angle, the inlet devrine, the endless screw snail gear pair.

In accordance with this principle, the efficiency of helical forehead reductor's:
The efficiency of one stage (one gear pair) reductors is 98.5%

The efficiency of two-stage (2-gear pair) reductors is 97%

The efficiency of two-stage (3-gear pair) reductors is 97%

The efficiency of two-stage (4-gear pair) reductors is 97%

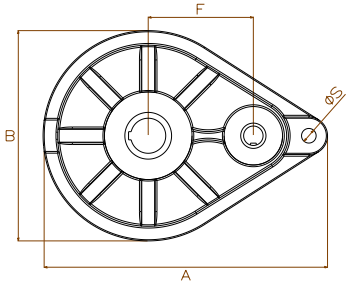
Operation, Quality Control and Shipment

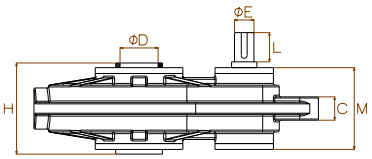
At the end of the assembly, Reductors are operated without load and the following checks are made:

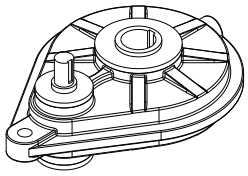
- Whether the reductor works quietly and without vibration,
- Whether the grease level is sufficient,
- Any Leakage from grease felts and covers.
- The reductors which pass through the quality control are delivered with their grease filled and ready to work, together with the maintenance instructions.

AG-50 PEAR REDUCTOR

	AG-50
Type	Pear Body
Gear Ratio	6,4/1
Output Speed 1000 rpm	155
Output Speed 1500 rpm	235
Kwan	5,5 - 7,5
Hp	7,5 - 10
Thermal Power Kw	10
Nominal Torque (Nm) 1000 rpm	450 - 620
Nominal Torque (Nm) 1500 rpm	300 - 410
Core Ø (D) mm	45 - 50
Shaft Ø (E) mm	32
REDUCTOR Pulley Type	17*3 SB 280 TB
Grease Amount Lt.	1,5
Weight Kg	32





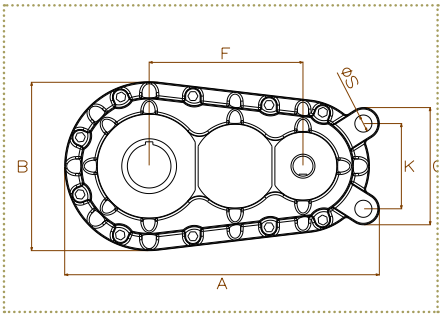


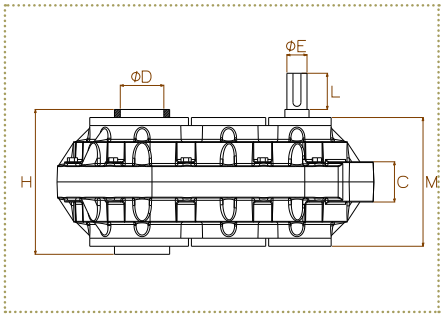
	A	B	C	D	E	F	H	L	M	S
AG-50	515 mm	420 mm	50 mm	50 mm	32 mm	174 mm	160 mm	60 mm	150 mm	20 mm

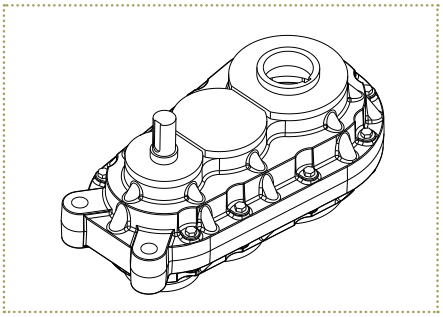
* The thermal power values given in the chart are for the in-door operating and not cooling reductors.
* For reductors operating in cold environments, the thermal power can be higher than the value on the chart.
* If the power to be carried is greater than the thermal power, the reductor must be cooled mechanically.

PG-45 REDUCTOR

	PG-45
Type	PG staged
Gear Ratio	12/1
Output Speed 1000 rpm	83
Output Speed 1500 rpm	125
Kwan	5,5 - 7,5
Hp	7,5 - 10
Thermal Power Kw	10
Nominal Torque (Nm) 1000 rpm	850 - 1160
Nominal Torque (Nm) 1500 rpm	570 - 775
Core Ø (D) mm	45 - 50
Shaft Ø (E) mm	28
REDUCTOR Pulley Type	17*3 SB 250 TB
Grease Amount Lt.	1,5
Weight Kg	32







	A	B	C	D	E	F	G	H	K	L	M	S
PG-45	460 mm	265 mm	38 mm	50 mm	28 mm	185 mm	162 mm	190 mm	112 mm	60 mm	184 mm	22 mm

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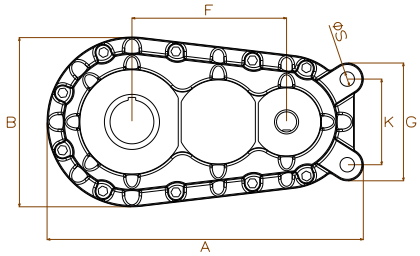
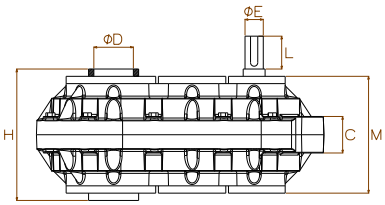
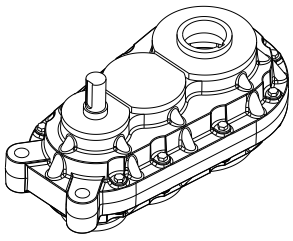
* If the power to be carried is greater than the thermal power, the reductor must be cooled mechanically.

PG-50 REDUCTOR

	PG-50
Type	PG STAGED
Gear Ratio	12/1
Output Speed 1000 rpm	83
Output Speed 1500 rpm	125
Kwan	7,5 - 11
Hp	10 - 15
Thermal Power Kw	24
Nominal Torque (Nm) 1000 rpm	1160 - 1700
Nominal Torque (Nm) 1500 rpm	775 - 1140
Core Ø (D) mm	45 - 50
Shaft Ø (E) mm	32
REDUCTOR Pulley Type	17*3 SB 250 TB 17*4 SB 250 TB
YGrease Amount Lt.	2
Weight Kg	34



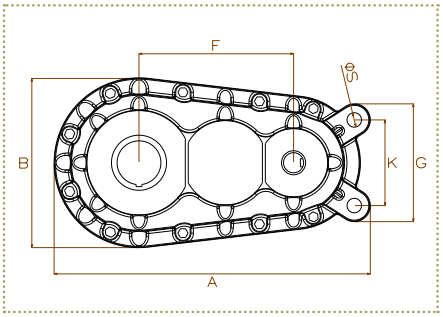


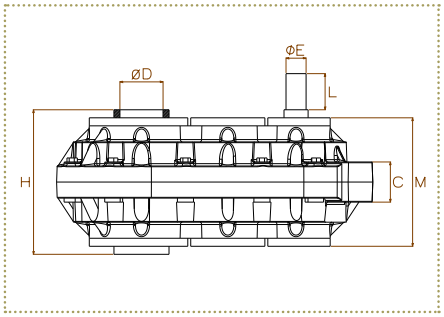


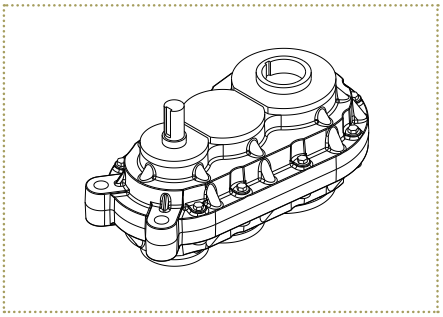
	A	B	C	D	E	F	G	H	K	L	M	S
PG-50	500 mm	285 mm	58 mm	50 mm	32 mm	194 mm	205 mm	207 mm	140 mm	65 mm	198 mm	22 mm

PG-55 REDUCTOR

	PG-55
Type	PG Satged
Gear Ratio	12/1
Output Speed 1000 rpm	83
Output Speed 1500 rpm	125
Kwan	15 - 18
Hp	20 - 25
Thermal Power Kw	40
Nominal Torque (Nm) 1000 rpm	2320 - 2790
Nominal Torque (Nm) 1500 rpm	1550 - 1850
Core Ø (D) mm	50 - 55
Shaft Ø (E) mm	42
REDUCTOR Pulley Type	17*3 SB 200 TB 17*4 SB 200 TB
Grease Amount Lt.	3
Weight Kg	50







	A	B	C	D	E	F	G	H	K	L	M	S
PG-55	565 mm	325 mm	42 mm	55 mm	42 mm	236 mm	190 mm	238 mm	130 mm	67 mm	228 mm	24 mm

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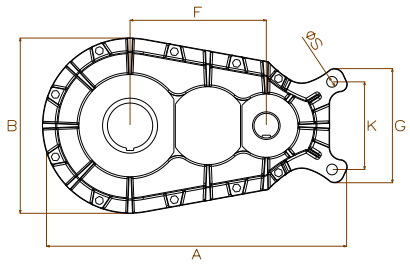
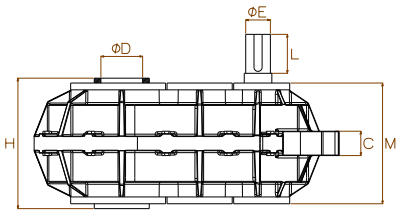
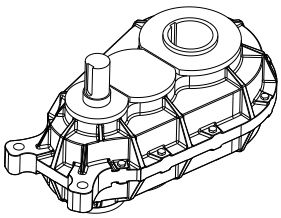
* For reductors operating in cold environments, the thermal power can be higher than the value on the chart.
* If the power to be carried is greater than the thermal power, the reductor must be cooled mechanically

PG-70 REDUCTOR

	PG-70
Type	PG Heavy duty
Gear Ratio	16/1
Output Speed 1000 rpm	62,5
Output Speed 1500 rpm	94
Kwan	22 - 25
Hp	30 - 35
Thermal Power Kw	60
Nominal Torque (Nm) 1000 rpm	4530 - 5110
Nominal Torque (Nm) 1500 rpm	3025 - 3440
Core Ø (D) mm	65 - 70
Shaft Ø (E) mm	48
REDUCTOR Pulley Type	17*4 SB 250 TB
Grease Amount Lt.	5
Weight Kg	95







	A	B	C	D	E	F	G	H	K	L	M	S
PG-70	645 mm	360 mm	45 mm	70 mm	48 mm	278 mm	260 mm	267 mm	198 mm	99 mm	250 mm	24 mm

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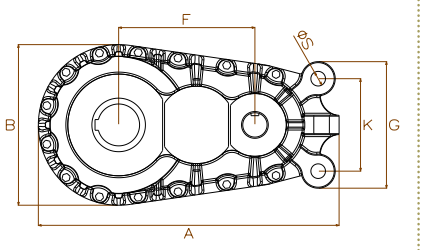
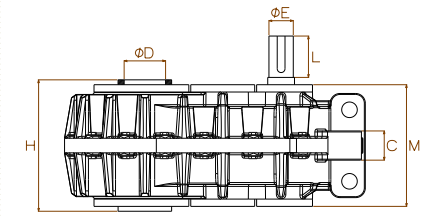
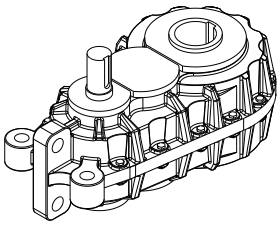
* If the power to be carried is greater than the thermal power, the reductor must be cooled mechanically

PG-80 REDUCTOR

	PG-80
Type	PG Heavy duty
Gear Ratio	16/1
Output Speed 1000 rpm	62,5
Output Speed 1500 rpm	94
Kwan	30 - 40
Hp	40 - 55
Thermal Power Kw	80
Nominal Torque (Nm) 1000 rpm	6190 - 8250
Nominal Torque (Nm) 1500 rpm	4125 - 5500
Core Ø (D) mm	75 - 80 - 85
Shaft Ø (E) mm	55
REDUCTOR Pulley Type	17*4 SB 250 TB
Grease Amount Lt.	7
Weight Kg	150







	A	B	C	D	E	F	G	H	K	L	M	S
PG-80	720 mm	400 mm	83 mm	80 mm	55 mm	320 mm	280 mm	316 mm	210 mm	100 mm	305 mm	29 mm

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SPARE PARTS

Conical Crusher Pump

Conveyor Belt Brake

Reductor Body Spare Parts

Reductor Body Spare Parts


GUNKUL


REISHAUER


HURCO
VMX42SRTi

PARS REDÜKTÖR

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