



comer industries

**CHAIN & DRIVES®**  
COMPLETE POWER  
TRANSMISSION

POWER > SPEED > TORQUE

# Planetary Drives



pag.	
2	Profilo
4	Gamma
6	Serie PG - PGA
8	Serie PGR - PGS - PGW
10	Serie PG PR
12	Centro Ricerche di Meccatronica

# Planetary Drives

<i>page</i>	
2	<i>Profile</i>
4	<i>Range</i>
6	<i>Series PG - PGA</i>
8	<i>Series PGR - PGS - PGW</i>
10	<i>Series PG PR</i>
12	<i>Mechatronics R&amp;D Centre</i>





# Profilo

Profile

Comer Industries è una società di Meccatronica che progetta, produce e commercializza sistemi avanzati per la trasmissione di potenza. L'azienda propone una linea completa di trasmissioni meccaniche, idrostatiche e servizi di ingegneria, di logistica e di Information Technology per l'industria delle macchine operatrici agricole ed industriali.

L'azienda opera da oltre 35 anni nei principali paesi del mondo, in particolare in Europa e Nord America, dove è partner dei maggiori gruppi agricoli ed industriali del settore, riunendo le esperienze e le competenze di diverse specializzazioni produttive.

La linea di produzione PLANETARY DRIVES si compone di riduttori epicicloidali modulari, riduttori ruota e riduttori per rotazione destinati all'impiego su macchine operatrici mobili, impianti fissi industriali e macchine per l'ecologia.

Le trasmissioni della linea PLANETARY DRIVES sono altamente personalizzate, la gamma è versatile ed evoluta, e l'ampia conoscenza delle applicazioni industriali unita all'elevata capacità progettuale consentono di rispondere alle esigenze del cliente con l'innovazione continua, la qualità e l'offerta di un servizio completo.



*Comer Industries is a Mechatronics company that designs, manufactures and sells advanced engineering solutions for power transmission. It offers a full line of mechanical and hydrostatic transmissions, as well as integrated drive systems, together with knowledge and service-based ICT activities for agricultural and industrial equipments.*

*For more than 35 years Comer Industries operates in the main countries all over the world, particularly in Europe and North America, where it has become the partner of the leading industrial and agricultural machinery OEMs, combining the expertise of a variety of manufacturing activities and business organization.*

*The PLANETARY DRIVES product line is divided into modular planetary drives, wheel drives and slewing drives mainly employed on mobile industrial equipments, stationary equipments and ecology industry.*

*The PLANETARY DRIVES transmissions are highly customized and available in many advanced versions. Application engineering and high design capability allow to solve any customer's problems, granting continuous improvement, quality and total service.*

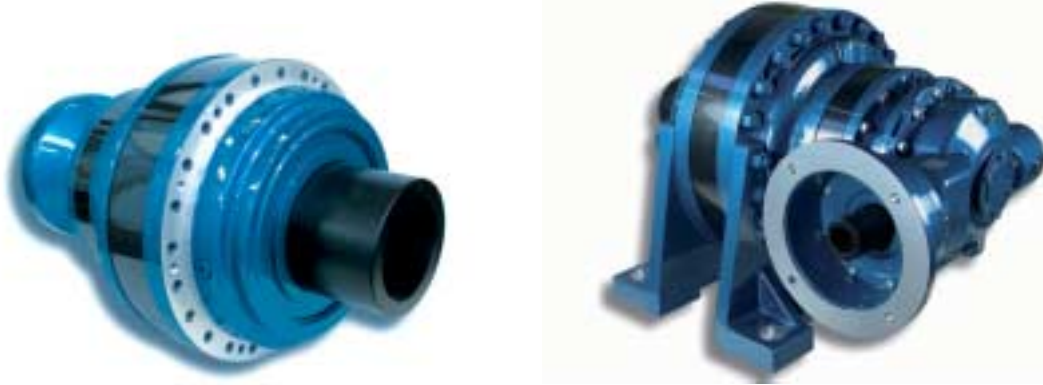
# Planetary Drives



# Gamma

Range

RIDUTTORI MODULARI - MODULAR DRIVES Series **PG - PGA**



RIDUTTORI RUOTA - WHEEL DRIVES  
RIDUTTORI PER ROTAZIONE - SLEW DRIVES

Series **PGR - PGW**  
Series **PGS**



RIDUTTORI PER ROTAZIONE - SLEWING DRIVES Series **PG PR**

























# Planetary Drives

Planetary Drives

# Series PG - PGA

## RIDUTTORI MODULARI - MODULAR DRIVES

### Versioni uscita - Output types

	i	Mc [kNm]	MS	MC	PS	PC	F	FS	CPC
			Flangia e albero scanalato Mounting flange and splined shaft 	Flangia e albero cilindrico Mounting flange and keyed cylindrical shaft 	Flangia e albero scanalato rinforzato Mounting flange and heavy duty splined shaft 	Flangia e albero cilindrico rinforzato Mounting flange and heavy duty keyed cylindrical shaft 	Flangia e albero cavo scanalato Mounting flange and female splined shaft 	Albero cavo per calettatore Shaft mounted 	Con piede e albero cilindrico Foot mounted and keyed cylindrical shaft 
<b>100</b>	<b>3.55 - 3422</b>	1.00	•	•	•	•	•	•	•
<b>160</b>	<b>3.55 - 3422</b>	1.60	•	•	•	•	•	•	•
<b>250</b>	<b>3.77 - 2369</b>	2.50	•	•	•	•	•	•	•
<b>500</b>	<b>3.77 - 1845</b>	5.00	•	•	•	•	•	•	•
<b>700</b>	<b>3.66 - 2969</b>	7.00	•	•	•	•	•	•	•
<b>1000</b>	<b>3.55 - 2230</b>	10.00	•	•	•	•	•	•	•
									
<b>1600</b>	<b>3.55 - 2230</b>	16.00	•	•	•	•	•	•	•
<b>1800</b>	<b>13.00 - 1216</b>	18.00	•	•	•	•	•	•	•
<b>2500</b>	<b>4.00 - 1774</b>	25.00	•	•	•	•	•	•	•
<b>3000</b>	<b>14.20 - 1425</b>	30.00	•	•	•	•	•	•	•
<b>3500</b>	<b>4.00 - 1920</b>	35.00	•	•	•	•	•	•	•
<b>5000</b>	<b>4.00 - 1982</b>	50.00	•	•	•	•	•	•	•
<b>6500</b>	<b>3.83 - 1008</b>	65.00	•	•	•	•	•	•	•
<b>9000</b>	<b>4.00 - 1623</b>	90.00	•	•	•	•	•	•	•
									
<b>14000</b>	<b>3.83 - 5674</b>	140.00	○	○			○	○	
<b>18000</b>	<b>3.91 - 9793</b>	180.00	○	○			○	○	
<b>22000</b>	<b>3.68 - 8522</b>	220.00	○	○			○	○	
<b>30000</b>	<b>4.09 - 5156</b>	330.00		○			○	○	
<b>40000</b>	<b>3.83 - 2969</b>	400.00		○			○	○	
<b>55000</b>	<b>3.84 - 2230</b>	550.00					○	○	
<b>65000</b>	<b>3.84 - 2230</b>	650.00					○	○	

### Accessori uscita - Output fittings

**BS** Boccola scanalata  
Splined bushing

**FF** Fondello di arresto  
Stop bottom plate

**KB** Barra scanalata  
Splined rod

**GA** Giunto di attrito  
Shrink disc

**FL** Flangia  
Flange



### Legenda

i = Rapporto di riduzione / Ratio

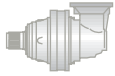
Mc = Coppia continua / Continuous torque

○ = A richiesta / On Request

**PG**  
Versione lineare  
Linear version

**PGA**  
Versione angolare  
Angular version

## Accessori entrata - *Input fittings*



**NOTA:** Per i riduttori epicicloidali sono disponibili attacchi predisposizioni motore, freni di stazionamento, alberi veloci.

**NOTE:** Planetary drives can be supplied with motor adaptors, stationary brakes, shafts.

**ED**



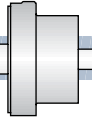
Entrate dirette senza freno con attacco motore  
*Direct input motor adaptor without brake*

**EDF**



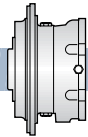
Entrate dirette con freno e attacco motore  
*Direct input motor adaptor with brake*

**EF**



Entrate dirette con freno e attacco motore  
*Direct input motor adaptor with brake*

**RA**

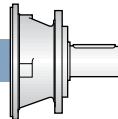


Freno  
*Brake*



Predisposizione motore idraulico  
*Hydraulic motor coupling*

**RB**



Albero entrata  
*Input shaft*



Predisposizione motore elettrico  
*Electric motor coupling*



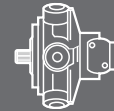
Predisposizione rid. vite senza fine  
*Worm gearbox adaptor*



Motore a pistoni assiali  
*Axial pistons motor*



Motore orbitale  
*Orbit motor*



Motore a pistoni radiali  
*Radial pistons motor*



Motore elettrico  
*Electric motor*









# Planetary Drives

Planetary Drives



# Series PGR

## RIDUTTORI CINGOLO - TRACK DRIVES


				 Motori orbitali Orbit motor	 Motori a pistoni assiali Axial piston motor (*)	
	P [ton]	i	M <sub>2</sub> [kNm]			
<b>130</b>	<b>1.8</b>	<b>3.28 - 5.75</b>	1.3	<b>GWS/GWP</b> 50 - 400	-	-
<b>280</b>	<b>3.0</b>	<b>6.09</b>	2.8		<b>GLSC</b> 80 - 315	-
<b>92</b>	<b>1.3</b>	<b>18.53-26.56</b>	1.0	-	1st speed <b>14.72 / 17.85</b> cc/rev	1st speed <b>14.72 / 17.85</b> cc/rev 2nd speed <b>8.70 / 11.68</b> cc/rev
<b>132</b>	<b>1.8</b>	<b>18.9 - 36.8</b>	1.3	-	1st speed <b>14.72 / 17.85</b> cc/rev	1st speed <b>14.72 / 17.85</b> cc/rev 2nd speed <b>8.70 / 11.68</b> cc/rev
<b>302</b>	<b>3.5</b>	<b>31.1 - 57.5</b>	3.0	-	1st speed <b>14.72 / 17.85</b> cc/rev	1st speed <b>14.72 / 17.85</b> cc/rev 2nd speed <b>8.70 / 11.68</b> cc/rev
<b>402</b>	<b>4.5</b>	<b>31.1 - 57.5</b>	4.0	-	1st speed not available	1st speed <b>24.17 / 29.02</b> cc/rev 2nd speed <b>11.85 / 16.38</b> cc/rev
<b>602</b>	<b>7</b>	<b>30.0 - 55.0</b>	7.0	-	1st speed not available	1st speed <b>32.36 / 36.45</b> cc/rev 2nd speed <b>16.77 / 20.58</b> cc/rev

**Legenda**  
P = Peso macchina / Operating weight  
i = Rapporto di riduzione / Ratio

M<sub>2</sub> = Coppia massima in uscita / Max. output torque  
(\*) = Cilindrata fissa/variabile con o senza freno  
Fixed and variable displacement with or without brake

# Series PGS

## RIDUTTORI PER ROTAZIONE - SLEW DRIVES

			 Motori a pistoni assiali Axial piston motor (*)	
	P [ton]	M <sub>2</sub> [kNm]	Pressione operativa massima Max operating pressure [bar]	Portata massima Max flow [l/min]
<b>PGS 130</b>	<b>2 - 3.5</b>	1.03	200	25
<b>PGS 150</b>	<b>3.5 - 5</b>	1.47	200	35
<b>PGS 160</b>	<b>5 - 6</b>	2.52	200	45
<b>PGS 170</b>	<b>6 - 7</b>	3.51	250	75




# Series **PGW**

## RIDUTTORI RUOTA - WHEEL DRIVES



Motori accoppiabili  
*Hydraulic motor adaptor*

	<b>i</b>	<b>M<sub>2</sub></b> [kNm]	
<b>130</b>	<b>3.28 - 5.75</b>	1.3	<b>GWS/GWP 50 - 400</b>
<b>220</b>	<b>5.75</b>	2.2	<b>GLC -OMSS - EATON2000</b>
<b>401</b>	<b>5.60</b>	3.5	<b>DANFOSS OMTS - FLUID POWER GLT C - M+S MTS</b>
<b>402</b>	<b>14.0 - 57.5</b>	4.0	<b>A2FE28/32 - SAE B - F 13/30</b>

### Legenda

**i** = Rapporto di riduzione / *Ratio*

**M<sub>2</sub>** = Coppia massima in uscita / *Max. output torque*

Versioni su specifiche del cliente di riduttori ruota - cingolo - tamburo

*Customized wheel - track - drum drives*



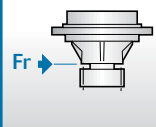
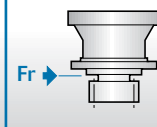
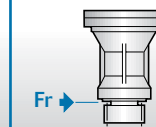
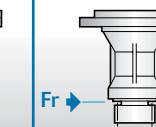
## Planetary Drives

Planetary Drives

# Series PG PR

## RIDUTTORI PER ROTAZIONE - SLEWING DRIVES

### Versioni uscita - Output types

							
	<b>i</b>	<b>M<sub>2</sub></b> [kNm]	<b>Fr</b> [N]				<i>Eccentrica - Eccentric</i>
<b>100 PR</b>	<b>3.55 - 3422</b>	1.00	29000	○	○		
<b>160 PR</b>	<b>3.55 - 3422</b>	1.60	39000	○	○		○
<b>250 PR</b>	<b>3.77 - 2369</b>	2.50	55000	○	○		
<b>500 PR</b>	<b>3.77 - 1845</b>	5.00	85000	○	○		○
<b>700 PR</b>	<b>3.66 - 2969</b>	7.00	120000	○	○	○	○
<b>950 PR</b>	<b>3.35 - 1942</b>	9.50	120000	○		○	○
<b>1600 PR</b>	<b>3.55 - 2230</b>	16.00	150000	○	○	○	○
<b>2500 PR</b>	<b>4.00 - 1774</b>	25.00	170000	○	○	○	○
<b>3500 PR</b>	<b>4.00 - 1290</b>	35.00	270000	○	○		○
<b>5000 PR</b>	<b>4.00 - 1982</b>	50.00	445000	○	○	○	○
<b>6500 PR</b>	<b>3.83 - 1008</b>	65.00	230000	○	○	○	○

#### Legenda

**i** = Rapporto di riduzione / *Ratio*

**M<sub>2</sub>** = Coppia massima in uscita / *Max. output torque*

**Fr** = Carichi radiali / *Radial loads*

**○** = A richiesta / *On Request*





## Accessori entrata - *Input fittings*

**ED**



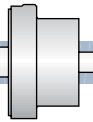
Entrate dirette senza freno con attacco motore  
*Direct input motor adaptor without brake*

**EDF**



Entrate dirette con freno e attacco motore  
*Direct input motor adaptor with brake*

**EF**



Entrate dirette con freno e attacco motore  
*Direct input motor adaptor with brake*

**RA**



Freno  
*Brake*

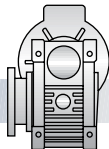


Predisposizione motore idraulico  
*Hydraulic motor coupling*

**RB**



Predisposizione motore elettrico  
*Electric motor coupling*



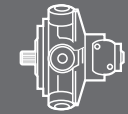
Predisposizione rid. vite senza fine  
*Worm gearbox adaptor*



Motore a pistoni assiali  
*Axial pistons motor*



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Motore a pistoni radiali  
*Radial pistons motor*



Motore elettrico  
*Electric motor*



NOTA: Albero di uscita con pignone integrale, possibilità di freno idraulico negativo e accoppiamento per motori elettrici ed idraulici  
*NOTE: Output pinion integral to the output shaft, negative hydraulic brake option and adaptors for all types of electric and hydraulic motors*

## Centro Ricerche di Meccatronica

### *Mechatronics R&D Centre*

#### Ricerca applicata ed innovazione di prodotto

Lo sviluppo, la sperimentazione e la prova dei prodotti PLANETARY DRIVES vengono effettuati nel Centro Ricerche di Meccatronica di Comer Industries, realizzato nel 1996 a Reggiolo (RE) per la ricerca applicata e l'innovazione di prodotto.

Dal giugno 2002 il Centro Ricerche è inserito nell'albo dei laboratori di ricerca pubblici e privati gestito dal Miur, il Ministero italiano dell'Istruzione, dell'Università e della Ricerca, quale primo laboratorio in Italia operativo nel campo della meccatronica.

Il Centro Ricerche si estende su una superficie coperta di 1.500 mq., con undici celle di sperimentazione e prova, perfettamente insonorizzate, dotate di attrezzature all'avanguardia e di apparecchiature di simulazione in grado di riprodurre le situazioni di reale utilizzo e funzionamento delle trasmissioni sulla macchina operatrice.

Il Centro Ricerche consente a Comer Industries di realizzare l'innovazione, la messa a punto ottimale del prodotto e di comprimere i tempi di esecuzione dei prototipi; ai clienti consente di ridurre il time to market per il lancio sul mercato delle nuove macchine.

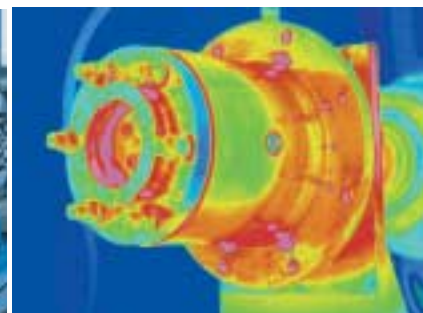
#### *Applied research and product innovation*

*PLANETARY DRIVES product line is developed, tested and approved in the Comer Industries Mechatronics R&D Centre, which has been set up in 1996 at Reggiolo (RE) to conduct applied research and innovation.*

*At the end of June 2002, the Center has been introduced in the register of the Private and Public Research Laboratories run by the MIUR, the Italian Ministry of Instruction, University and Research. In the Mechatronic sector, The Comer industries' laboratory is the first in Italy to be included in the ministerial program.*

*The Mechatronics Centre operates on a covered area of 1500 sqm, with eleven test rooms, totally acoustic insulated, equipped with the latest devices and simulators capable of reproducing machine operating environment.*

*The Centre enables Comer Industries to maximize innovation, the optimum product performances, to reduce the prototyping lead times and the customer's time-to-market required for innovative projects.*







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