

THE RECKON® RANGE

15 coaxial lines. 8 right-angle lines. 23 configurations
from 5 Nm rated to 6216 Nm rated



How do planetary gearboxes work?

The sun gear (1) rotates together with your motor shaft.

It meshes simultaneously with 3 or more planet gears (2)

The planet gears rotate simultaneously around the sun gear and inside the ring gear (3)

> The reduction ratio between sun gear and planet gears is:

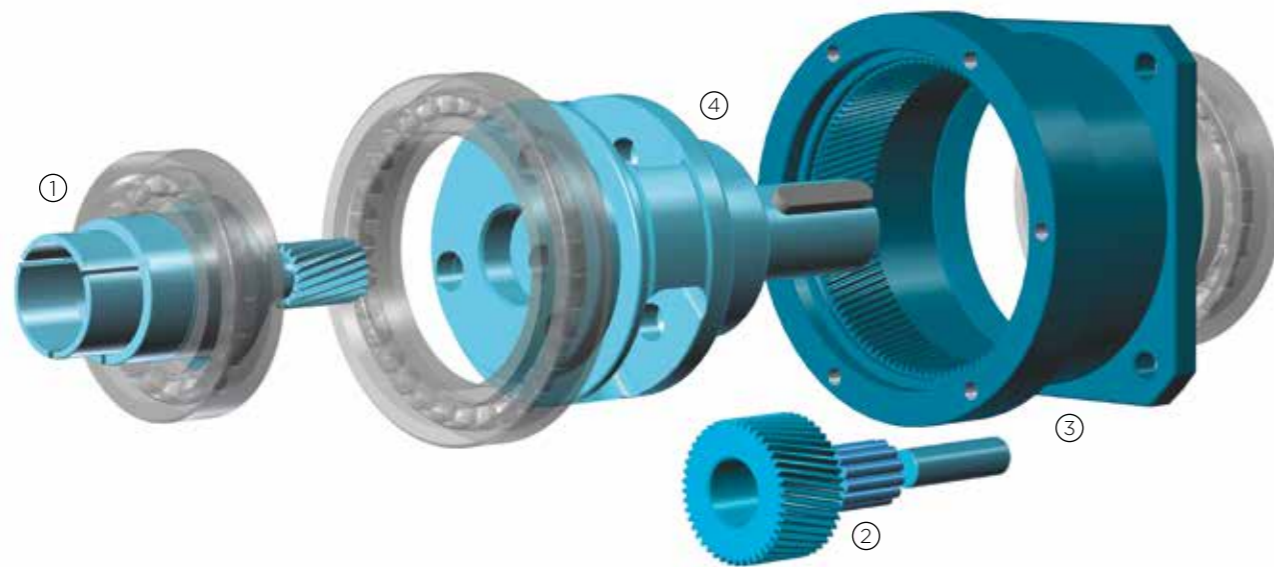
Planet gears' number of teeth (Z2) / Sun gear's number of teeth (Z1)

> The reduction ratio between the planet gears and the ring gear is :

Ring gear's number of teeth (Z3) / planet gears number of teeth (Z2)

The planet gears rotate inside the ring gear the same direction your motor does.

Since they are inserted in the planet carrier (4), the output shaft rotates the same speed the planet gears rotate inside the ring gear.



Total reduction ratio between the sun gear and the output shaft is: $1 + Z3/Z1$. It is an exact number, which means the number of rotation of the output shaft is exactly proportional to the number of rotation on the input shaft. However, within one rotation, the angular position of the shaft cannot be considered exact, its precision depends on the precision of the inner elements of the gearbox and is more or less equivalent to the backlash.

Considering the need for a minimal number of teeth on the sun gear, it is generally considered that 1-stage gearboxes should not offer ratios above 10. Planetary gearboxes with ratios above 10 usually pile-up stages, so a ratio 25 gearbox is made of 2 ratio 5 stages.

Quality-based performance

All Reckon® planetary gearboxes feature the following elements:



High-precision, carburized, quenched gears.

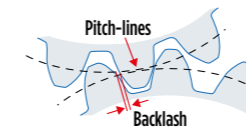
Offering superior performance, long lifetime and everlasting precision even under tough working conditions.



PerfectPitch™

PerfectPitch™ concept*

Offering silent operation and high reliability to your gearbox.



Low backlash

<1 arc-min backlash option available on most 1-stage models size 90 and above.



Balanced input coupling

Offers a strong grip, avoiding vibration and preserving your motor shaft bearings against radial efforts.



Double-supported, caged planet carriers**

Increasing stiffness and improving meshing of the gears during accelerations.



Bearings, seals and lubricants from premium suppliers

We source our components safely from renowned world-class suppliers.

* Available the WISER, LIVELY, BOOSTER and ULTIMATE series.

**Available on all Perfect Pitch™ compliant series.

IN-LINE GEARBOXES

ECO LINES



	ACCESS-FI	ACCESS-CI	ACCESS-SQ	SPIRIT-CI
Servo-grade gearbox	Yes	Yes	Yes	Yes
Toothing	Straight, carburized	Straight, carburized	Straight, carburized	Straight, carburized
Number of size in the line	4 sizes 40-120	4 sizes 40-120	4 sizes 40-120	4 sizes 40-120
Range of rated torques of the line	5 Nm to 205 Nm	5 Nm to 205 Nm	5 Nm to 205 Nm	5 Nm to 205 Nm
Standard Angular precision	Sizes 040 to 070	1 stage : ≤7 or 10 arc-min 2 stages : ≤10 or 13 arc-min	1 stage : ≤7 or 10 arc-min 2 stages : ≤10 or 13 arc-min	1 stage : ≤7 or 10 arc-min 2 stages : ≤10 or 13 arc-min
	Sizes 075 to 285	1 stage : ≤5 arc-min 2 stages : ≤8 arc-min	1 stage : ≤5 arc-min 2 stages : ≤8 arc-min	1 stage : ≤5 arc-min 2 stages : ≤8 arc-min
Reduced angular precision	Sizes 040 to 070	Not available	Not available	Not available
	Sizes 075 to 285	Not available	Not available	Not available
Efficiency	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%
Output	Stainless steel shaft (with or without a key)	Shaft (with or without a key)	Shaft (with or without a key)	Rotating flange
Mounting interface (output side)	Round	Round	Square	Round
Mounting interface (motor side)	All Reckon gearboxes come with the flange and coupling adapted to your motor dimensions.			
Motor shaft connection	Balanced coupling	Balanced coupling	Balanced coupling	Balanced coupling
Acceleration capacity	+++	+++	+++	+
Fast reversals	+++	+++	+++	+
Radial loads	+++	+++	+++	++
Axial loads	+	+	+	+
Stiffness	++	++	++	+
Torque density	+++	+++	+++	++++
Lubricant	Food-grade lubricant optional	Sumico Japan High Pressure Grease (NLGI 2).		
Coating	None	Nippon Paint coating. Color code Capri Blue (RAL 5019), glossy finish.		
Housing	316L steel	Forged steel	Forged steel	Forged steel

SELECT LINES



WISER-CI	WISER-SQ	LIVELY-CI	LIVELY-SQ	X-TREME-SQ	BOOSTER-SQ	ULTIMATE-CI
Yes	Yes	Yes	Yes	Yes	Yes	Yes
Helical, carburized	Helical, carburized	Helical, carburized	Helical, carburized	Helical, carburized	Helical, carburized	Helical, carburized
3 sizes 60-120	3 sizes 60-120	7 sizes 40-235	7 sizes 40-235	7 sizes 60-240	3 sizes 60-120	7 sizes 47-285
14 Nm to 214 Nm	14 Nm to 214 Nm	5 Nm to 1.888 Nm	5 Nm to 1.888 Nm	16 Nm to 4,500 Nm	16 Nm to 260 Nm	5 Nm to 4500 Nm
1 stage : ≤5 arc-min 2 stages : ≤8 arc-min	1 stage : ≤5 arc-min 2 stages : ≤8 arc-min	1 stage : ≤5 arc-min 2 stages : ≤5 arc-min	1 stage : ≤5 arc-min 2 stages : ≤5 arc-min	1 stage : ≤5 arc-min 2 stages : ≤5 arc-min	1 stage : ≤5 arc-min 2 stages : ≤5 arc-min	1 stage : ≤5 arc-min 2 stages : ≤5 arc-min
1 stage : ≤5 arc-min 2 stages : ≤8 arc-min	1 stage : ≤5 arc-min 2 stages : ≤8 arc-min	1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤3 arc-min 2 stages : ≤5 arc-min
1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤3 arc-min 2 stages : ≤3 arc-min	1 stage : ≤3 arc-min 2 stages : ≤3 arc-min	1 stage : ≤3 arc-min 2 stages : ≤3 arc-min	1 stage : ≤3 arc-min 2 stages : ≤3 arc-min	1 stage : ≤3 arc-min 2 stages : ≤3 arc-min
1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤3 arc-min 2 stages : ≤5 arc-min	1 stage : ≤1 arc-min 2 stages : ≤3 arc-min	1 stage : ≤1 arc-min 2 stages : ≤3 arc-min	1 stage : ≤1 arc-min 2 stages : ≤3 arc-min	1 stage : ≤1 arc-min 2 stages : ≤3 arc-min	1 stage : ≤1 arc-min 2 stages : ≤3 arc-min
1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%	1 stage : 97% 2 stages : 94%
Shaft (with or without a key)	Shaft (with or without a key)	Shaft (with or without a key)	Shaft (with or without a key)	Shaft (with or without a key)	Shaft (with or without a key)	Rotating flange
Round	Square	Round	Square	Square	Square	Round
A bushing may be necessary to adapt the coupling to non-standard motor shafts - it is then supplied with the gearbox.						
Balanced coupling	Balanced coupling	Balanced coupling	Balanced coupling	Balanced coupling	Balanced coupling	Balanced coupling
++	++	+++	+++	++++	++++	+++++
++	++	+++	+++	+++	++++	+++++
++	++	++	++	+++++	+++	++++
+	+	+	+	+++++	++	++++
++	++	+++	+++	++++	++++	+++++
++	++	+++	+++	++++	++++	+++++
Reckon gearboxes are lubricated for life. Special lubricants available for high speed operation, food-grade applications or high-temperature conditions.						
Nippon Paint coating. Color code Capri Blue (RAL 5019), glossy finish.						
Aluminum	Aluminum	Forged steel	Forged steel	Forged steel	Forged steel	Forged steel

Do not hesitate to contact us if you need help, our R&D dept will be happy to assist you.



India

Amcats Pvt. Ltd.

Anden Mechatronics Pvt. Ltd.

303-308, Krishna Bhavan Annexe,
22B, Govandi Station Road, Deonar,
Mumbai - 400088. MH, India.

Tel: +91 22 25550900 / 61464444

Whatsapp: 7208880057 / 9967550131

Email: sales@amcats.com