



Sales Arguments

SCHUNK PGN-plus ↔ Zimmer 5000 Series

Superior Clamping and Gripping



Outline

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2. Presentation of Competitor Product - ZIMMER 5000 Series
3. Zimmer Marketing Claims
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5. Comparison of Number of Available Variants
6. Comparison of Available Accessories
7. Current Price Situation

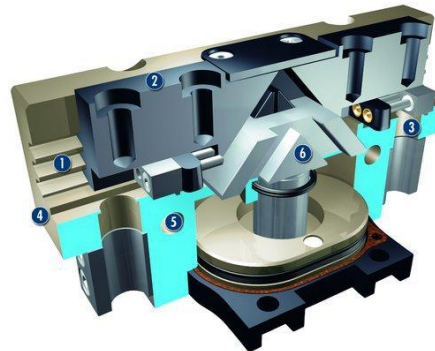
1. PGN-plus Advantages

Multiple teeth are better than one.



SCHUNK PGN-plus:

- The most trusted gripper on the market
- The result of 30 years of gripper expertise
- More than 500,000 products in use
- Patented precision due to multi-tooth guidance
- 30-year long life functional warranty
- Allows maximum gripping forces with high force absorption and payload
- Stands for precision, sturdiness and reliability



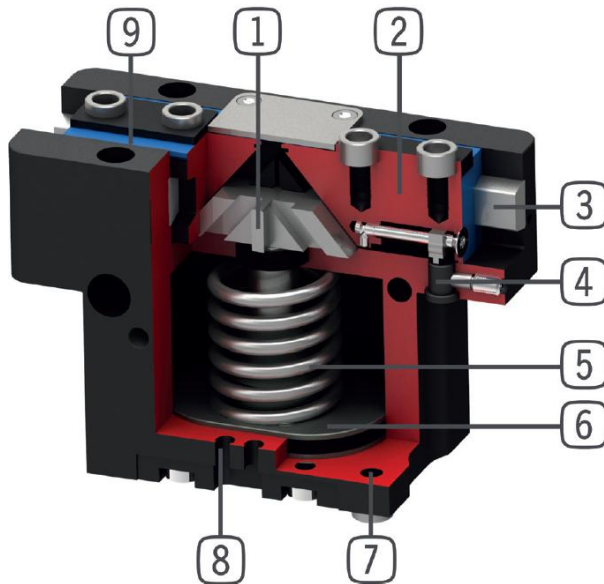
2. Presentation of Competitor Product – ZIMMER 5000 Series



Not better than SCHUNK overall!

Zimmer has developed a good quality product, which is based very strongly on the PGN-plus engineering design.

However, a detailed look reveals that the specifications are not 100% comparable.



- ① **Positively driven wedge hook transmission**
 - Supports to absorb high force and torque levels
 - Synchronized gripper jaw movement
- ② **Gripper jaw**
 - DLC coated to protect against corrosion
 - Gripper fingers mounted using removable centring sleeves
- ③ **Steel Linear Guide**
 - Steel in steel guide
 - Enables use of extremely long gripper fingers
- ④ **Mounting block**
 - mounting for inductive proximity switch
- ⑤ **Integrated gripping force safety device**
 - Spring built into cylinder chamber as an energy store

- ⑥ **Drive**
 - Double-acting pneumatic rotor cylinder
- ⑦ **Mounting and positioning**
 - Alternatively, on several sides for customized mounting
 - Pneumatic and electrical versions identical apart from height
- ⑧ **Sensing slot**
 - mounting and positioning of magnetic field sensors
- ⑨ **Dual lip seal**
 - IP64 and up to IP67 for Protector version
 - Prevents grease from being squeezed out, increasing service life

3. Zimmer Marketing Claims

In basic version

- I. Up to 30% more gripping force than the benchmark
- II. 10% higher static forces and moments than the benchmark
- III. 10% longer claw jaws than on the benchmark
- IV. 15% higher claw jaw weight than on the benchmark
- V. IP64 sealed guidance/IP67 protector version
- VI. Corrosion-protected
- VII. Up to 30 million cycles maintenance-free

4. Sales Arguments for Direct Attack by ZIMMER

ZIMMER claims

Up to 30% more gripping force than the benchmark

Response from SCHUNK

They are comparing apples and oranges.

Zimmer specifies the gripping force without fingers (thus a distance of 0 mm) and not at a distance from point P like SCHUNK. Where do you grip?

ZIMMER claims

10% higher static forces and moments than the benchmark

Response from SCHUNK

They are comparing apples and oranges. Zimmer specifications are comparable, not higher.

SCHUNK is more conservative when specifying figures and bases its data on verified measurements. The catalog specifications are not based on defined/standardized measuring criteria.

4. Sales Arguments for Direct Attack by ZIMMER

ZIMMER claims

10% longer claw jaws than on the benchmark

Response from SCHUNK

Zimmer states that it can use 10% longer claw jaws, but they do not provide any information about projections at the side. Initial comparative measurements have shown a significant reduction in gripping force with projections at the side. In addition, these measurements reveal that with long fingers the gripping force is comparable with SCHUNK.

ZIMMER claims

15% higher claw jaw weight than on the benchmark

Response from SCHUNK

SCHUNK only specifies finger lengths that have been endurance tested and have achieved the desired release cycles. Also, there are no standardized measuring criteria, which means that a comparison is not meaningful. With sufficient limiting, SCHUNK products can also move higher masses.

4. Sales Arguments for Direct Attack by ZIMMER

ZIMMER claims

IP64 sealed guidance (in basic version) / IP67 protector version

Response from SCHUNK

What Zimmer has constructed in the basic version is not IP64.

The comparable PGN-plus IP64 dust protection version is technically constructed with a “complete” SD cover as with Zimmer, but we are realistic and conservative with IP64 and do not specify IP67 like ZIMMER.

In the Zimmer basic version with IP64, the base jaw guidance is exposed – while with SCHUNK it is completely “enclosed” and thus IP64 protected.

ZIMMER claims

Corrosion-protected

Response from SCHUNK

SCHUNK has been supplying DLC coated guides and the resulting corrosion protection for more than 10 years.

4. Sales Arguments for Direct Attack by ZIMMER

ZIMMER claims

Up to 30 million cycles maintenance-free

Response from SCHUNK

Zimmer always specifies very optimistic figures, while SCHUNK takes a more conservative approach and verifies the figures in endurance testing → We offer a long life warranty (30 year functional warranty, not limited to 30 million cycles)
Note the ZIMMER wording “Up to...”!

ZIMMER claims

(Zimmer has only inductive sensors with diameter 4 mm on some sizes)

Response from SCHUNK

In their current version, the Zimmer grippers are not suitable for automotive applications.

4. Sales Arguments for Direct Attack by ZIMMER

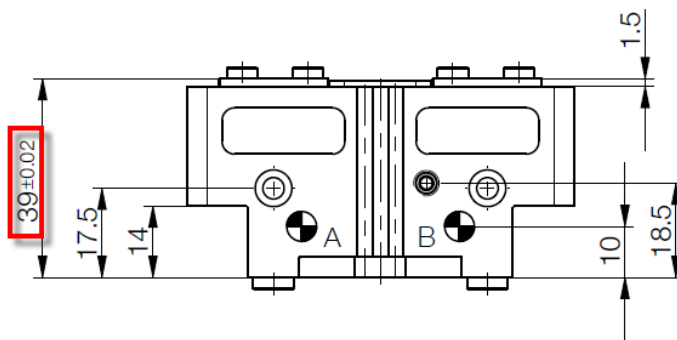
ZIMMER claims

The standard design has a high exchange accuracy of maximum 0.05 millimeters (the tolerance in the drawing is ± 0.02 mm)

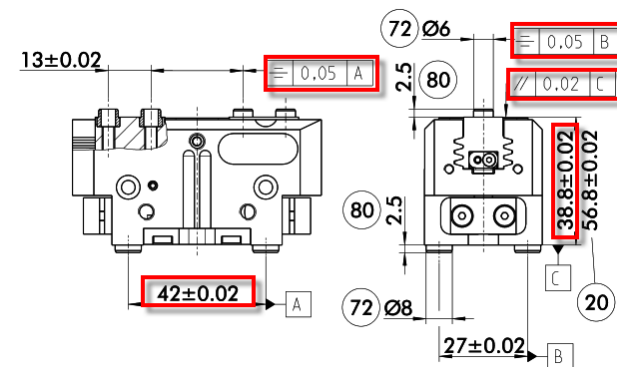
Response from SCHUNK

SCHUNK also offers a precision version - in fact SCHUNK has 5 precision features!
SCHUNK has an evenness in height of ± 0.02 mm, and a clamping center of ± 0.02 mm

ZIMMER basic version:



SCHUNK



4. Sales Arguments for Direct Attack by ZIMMER

ZIMMER claims

1:1 replacement/compatibility with other premium grippers

Response from SCHUNK

In the current version, the Zimmer grippers are not suitable for automotive applications.

The connection dimensions are the same but in the standard variants (5006 [64], 5008 [80] and 5010 [100]) only inductive sensors with Ø 4 mm can be used. SCHUNK offers IN80 sensors here. Sensors with Ø 8 mm are generally used in the automotive industry, which is a major advantage of SCHUNK.

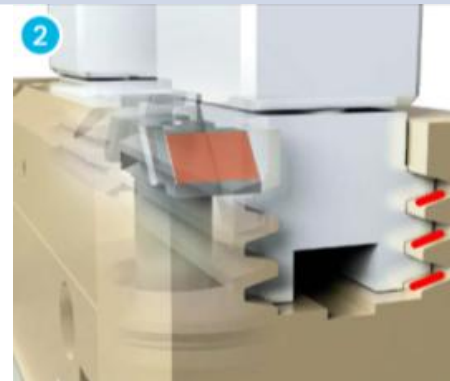
4. Sales Arguments for Direct Attack by ZIMMER

ZIMMER claims

The grippers are equipped with extremely durable, DLC-coated steel-in-steel precision prism guidance, and deliver optimum figures for load bearing capacity, moment loads, and wear resistance.

Response from SCHUNK

Thanks to its superior geometry, the SCHUNK multi-tooth guidance provides double the locating surface. This results in the surface pressure on the loaded guide elements being lower by a factor of 2. The steel on steel pairing also leads to excellent results. However, wear and life span are directly related to the surface pressure.



5. Comparison of Number of Available Options

	Stroke 1	Stroke 2	K (corrosion-protected version)	V/HT (high temperature version)	KVZ (force amplification version)	P (precision version)	EX (explosion protection)	SD (dust protection)	AS (external gripping force safety sys)	IS (internal gripping force safety sys)
SCHUNK										
PGN-plus 40	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 64	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 80	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 125	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 160	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 200	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 240	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
PGN-plus 300	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
PGN-plus 380	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
ZIMMER										
GPP 5003 (corresponds to 40)	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓
GPP 5004 (corresponds to 50)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
GPP 5006 (corresponds to 64)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
GPP 5008 (corresponds to 80)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
GPP 5010 (corresponds to 100)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
GPP 5013 (corresponds to 125)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
GPP 5016 (corresponds to 160)	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
GPP 5025 (corresponds to 200)	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
GPP 5030 (corresponds to 240)	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
GPP ??? (corresponds to 300)	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
GPP ??? (corresponds to 380)	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

→ Total 106 options

→ SCHUNK covers all the variants offered by Zimmer

The right solution for every application – More options for greater standardization.

→ Online since 1/15/2015; available?

→ Online since 1/15/2015; available?

→ Total 62 options

→ Online since 1/15/2015; available?

→ Online since 1/27/2015 without catalog data sheets

→ Online since 1/27/2015 without catalog data sheets

6. Comparison of Available Accessories

The SCHUNK modular system opens up an outstanding range of possibilities – 4x more accessories, 4x more benefit as standard.

	IN inductive proximity switch	MMS-P/P1/P2 programmable magnetic switch	FPS flexible position sensor	APS-Z80 analog position sensor	APS-M1 analog position sensor	PA3 pneumatic monitoring	RMS reed switch	RSS radio sensor system	OAS object distance and presence sensor	FMS force measuring jaws	HUE dust cover	BSWS quick-change jaw system	ABR/5BR top jaw blank	Laser-formed gripper fingers	ABV micro valves	SDV-P pressure maintenance valve
SCHUNK																
PGN-plus 40	✗	✓	✗	✗	✗	✓	✗	✗	✓	✗	✓	✗	✓	✓	✓	✓
PGN-plus 50	✗	✓	✗	✗	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 64	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 80	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 125	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 160	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGN-plus 200	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓
PGN-plus 240	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓
PGN-plus 300	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓
PGN-plus 380	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✗	✗	✓	✗	✗
ZIMMER																
GPP 5003 (corresponds to PGN-plus 40)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5004 (corresponds to PGN-plus 50)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5006 (corresponds to PGN-plus 64)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5008 (corresponds to PGN-plus 80)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5010 (corresponds to PGN-plus 100)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5013 (corresponds to PGN-plus 125)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5016 (corresponds to PGN-plus 160)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5025 (corresponds to PGN-plus 200)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP 5030 (corresponds to PGN-plus 240)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
GPP ??? (corresponds to PGN-plus 300)	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
GPP ??? (corresponds to PGN-plus 380)	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

7. Current Price Situation (10/28/2014)



Based on initial information

Delivery time 6 weeks

With its basic version, Zimmer is positioning itself approx. 3% below the PGN-plus

SCHUNK:	PGN-plus 64-1	565 EUR	
Zimmer:	GPP5006N	547 EUR	−3.2%

SCHUNK offers flexible pricing for other options/variants

Superior Clamping and Gripping



J. Lehmann
Jens Lehmann, German goalkeeper legend,
brand ambassador for the family-owned
company SCHUNK since 2012

www.schunk.com