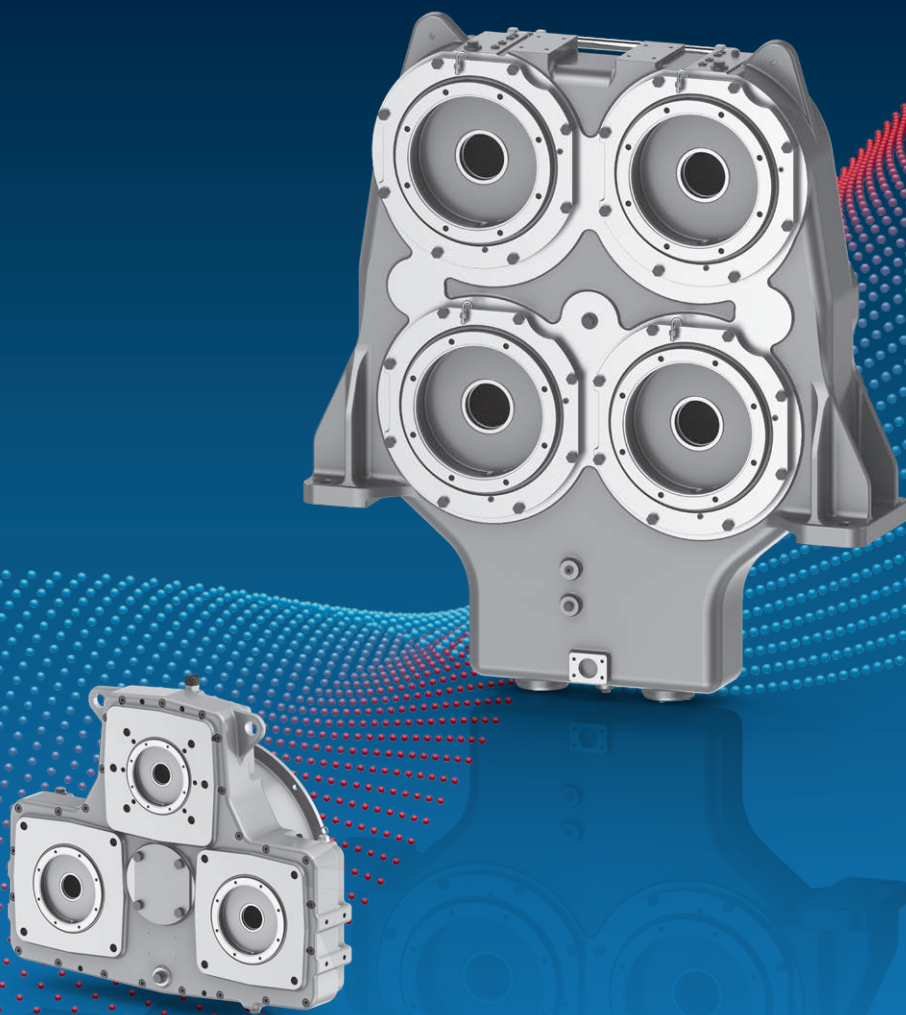


# Pump Distribution Gearboxes GFC

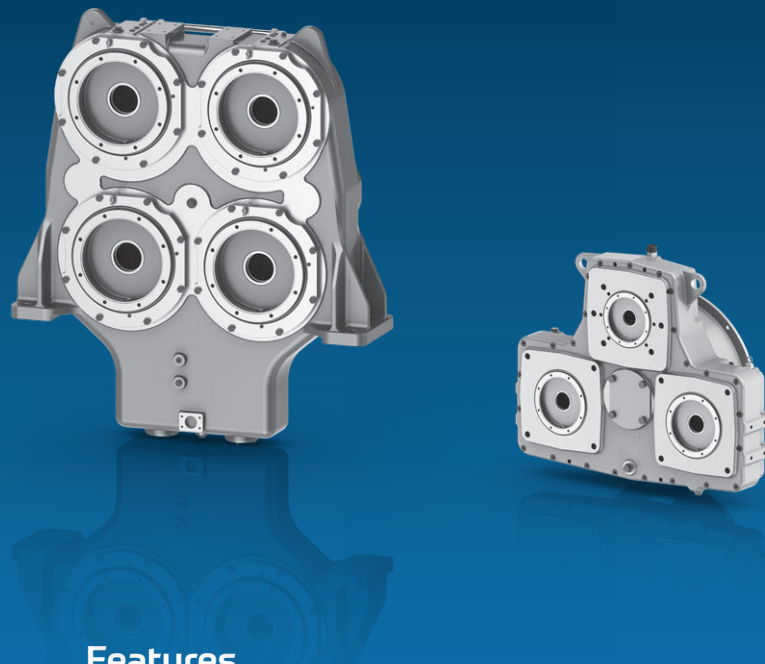


# Splitter gearboxes with high efficiency

ZF drives GFC are spur gearboxes for pump distribution for mining applications, large construction machinery and other mobile applications.

ZF pump distribution gearboxes GFC drive different hydraulic pumps simultaneously and are ideally suited for installation in large hydraulic applications. The gearbox has a direct connection to the hydraulic pumps.

ZF drives are characterized by their compact and space-saving construction and are extremely resilient.



## Features

- Direct flange-mounting on diesel or electric engine
- Gearbox can be directly flanged to the flywheel housing of the diesel engine
- Gear set with antifriction bearing
- Oil splash lubrication
- Designed for horizontal installation
- Flexible motor input
- Input power: 200 to 1,800 kW

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prosecution.

## Description

Pump distribution gearboxes GFC use single diesel- or e-motor power input to run hydraulic pumps on multiple outputs. Various movements are executed to drive, swing and lift the application.

As successor company of the former Lohmann + Stolterfoht GmbH, the ZF Industriebetriebe Witten GmbH incorporates decades of know-how into the design and production of pump drives.

Combined with state-of-the-art calculation methods, such as the Finite Element Method (FEM), gearboxes of the highest quality are produced, which are reliable even under the harshest and most challenging conditions.

The development and production expertise is supplemented by a unique long-term experience in the field of dynamic simulation and testing.

The gearbox types listed in this catalog describe the standard range of ZF Industriebetriebe Witten GmbH. For any other gearbox types and/or sizes, please contact us. Our aim is to find the optimum drive configuration right from the start

## Gearbox design

The design and high manufacturing quality result in gearboxes of exceptional resilience, reliability and low noise operation, e.g. by using case hardened gears and tempered, surface-hardened ring gears.

In addition, the ZF gearboxes GFC are easy to install and easy for maintenance in order to keep the subsequent operating costs as low as possible.

## Operating conditions

ZF gearboxes GFC are designed for use at ambient temperatures of between  $-25^{\circ}\text{C}$  and  $+40^{\circ}\text{C}$ . Surfaces and sealings are laid-out for use in harsh environment.

We design gearboxes for your specific application and requirements.

## Oil change and lubrication

Except for regular oil changes the gearboxes do not require maintenance. Oil changes may conveniently be made from the outside. The oil change intervals for different operating conditions are also specified in the operating manual. The gear teeth and bearings are splash lubricated.

The pinion-side antifriction bearing of the output shaft is grease-lubricated for life.

## Overview of pump distribution gearboxes GFC

Type	Outs (main)	Outs (extra)	Reduction ratio	Motor flange	Weight kg	Power kW	Installed in excavator class weight (tons)
<b>GFC 230</b>	3	0	0.98	SAE1	200	200	–
<b>GFC 320</b>	1	2	1.2	SAE0	1,000	960	200
<b>GFC 330</b>	2	≥2	2.4	SAE0	1,100	840	230
<b>GFC 345</b>	2	≥2	1.25	SAE00	1,400	1,500	600
<b>GFC 375</b>	4	≥1	1.25	SAE00	3,000	1,500	800
<b>GFC 380</b>	2	≥2	1.25	SAE00	2,200	1,250	350
<b>GFC 395</b>	3	≥2	1.25	SAE0/(w/o)	1,800	840	500
<b>GFC 400</b>	5	≥2	1.6	SAE00	2,800	1,120	300/600
<b>GFC 410</b>	4	≥2	1.6	SAE0/(w/o)	3,700	1,600	500
<b>GFC 412</b>	4	≥2	1.3	w/o	2,400	1,650	800
<b>GFC 420</b>	8	≥2	1.3	SAE00	4,300	1,700	–
<b>GFC 430</b>	3	1	1.1	SAE0	1,700	1,250	300
<b>GFC 430</b>	4	0	1.1	SAE0	2,600	1,500	400

# Customer specification GFC

In order to work out a quotation for your application, we kindly ask you to fill out this spec sheet.

Please send your inquiry to [sales.ii@zf.com](mailto:sales.ii@zf.com)

Company:
Name/Dept.:
Location/City:
Phone:
E-mail:
Date:

## Operating data/design

### Customer application

---

### Motor input

Motor type

electric  diesel

Motor - supplier

---

- type

---

Input - power

---

 kW

- rpm

---

 min<sup>-1</sup>

- torque

---

 Nm

- torque, max at rpm

---

 Nm at \_\_\_\_\_ min<sup>-1</sup>

Flange motor/housing (acc. SAE J617)

---

 e.g. SAE00, SAE0

Coupling

- supplier

---

- type

---

- design

---

- size

---

- connection type (flange/pinion)

---

 (details here or attached)

e.g. DIN 5480, ANSI B92.1, or data-sheet

to be quoted by ZF

yes  no

### Service life

Required bearing service life

---

 L<sub>h10</sub> [h]

Ambient temperatures:

Machine room

from \_\_\_\_\_ to \_\_\_\_\_ °C

Environment

from \_\_\_\_\_ to \_\_\_\_\_ °C

## Hydraulic-data (details here or attached)

Output	Input data (pinion, flange)	Pump(s) supplier type(s) size(s)	rpm min <sup>-1</sup>	Operating pressure pump max. bar	Output pumps	
					Max. power/pump (loss-free) kW	Max. torque/pump (loss-free) Nm
1						
2						
3						
4						
5						
6						

## Gear data

	1	2	3	4	5	6
Transmission i =						

## Performance data

Operating cycle	1	2	3	4	n
Time slice (%)					
output 1 [kW]					
2 [kW]					
3 [kW]					
4 [kW]					
5 [kW]					
6 [kW]					

Alternative: Load spectrum attached    yes     no

### Cooling system (optional)

---

yes  no

Cooling power \_\_\_\_\_ kW

Circulation at nominal rpm \_\_\_\_\_ l/min

Temperature delta cooling \_\_\_\_\_ °C

### General information

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Estimated number of gearboxes per year \_\_\_\_\_

Colour (standard: primed, grey) \_\_\_\_\_

Delivery date: Prototype/Serial start \_\_\_\_\_

Are there any legal requirements and/or other standards to be considered?

yes  no  if yes, please specify \_\_\_\_\_

**Further requirements** (e.g. application details, customer drawings, type plate, limiting dimensions, noise and vibration requirements ...):

# Additional product portfolio

## Travel drive gearboxes

- Planetary gearboxes  
GPT/GFA  
Technical documentation  
ZF 77110



## Swing gearboxes

- Planetary gearboxes  
GFB  
Technical documentation  
ZF 77201



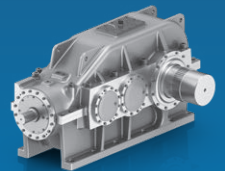
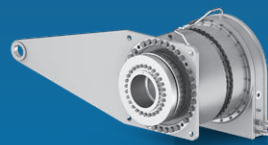
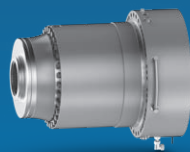
## Winch gearboxes

- Planetary gearboxes  
GPT-W  
Technical documentation  
ZF 77502



## Industrial gearboxes

- Redulus GMH/GME  
Technical documentation  
ZF 76120
- Technical documentation  
**Power packs**  
ZF planetary gearboxes  
for industrial applications  
ZF 76121



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