

# Black Bruin

## S Series

Industrial Hydraulic Motors



An aerial photograph of a rugged mountain range. The peaks are covered in snow, and the slopes are steep and rocky. A winding road or path is visible on the left side of the image. The overall scene is dramatic and scenic.

The New  
**S Series**





# Built to last

## With robust piston design

For almost 60 years Black Bruin Low-Speed High-Torque motors have powered various industrial applications worldwide. This extensive experience in the field of radial piston-cam ring motors is behind the new S Series. These Industrial Hydraulic Motors with a rotating shaft, are the most powerful Black Bruin's, rated up to 18900 ccm and 500 kW.

S Series motor has robust piston design and no backlash. The construction is ideal for demanding recycling applications with direction changes and shock loads. The power of S Series handles inconsistent waste material effortlessly and clears jamming situations with ease.

The torque transmitting components are easily serviceable if needed to guarantee the maximal uptime of your application.



# Get the job done

## With high productivity

The foundation drilling industry sets high demands on hydraulic motors. Black Bruin S Series motor is ideal to rotate the massive drill due to the high performance and durability. Contractors rely on S Series because they get the job done!

S Series direct drive transmits hydraulic energy efficiently without gears. With the 2-speed function, drilling speed can be changed on-the-go without stopping the operation. This is a great advantage in varying soil and ground conditions, ensuring the highest productivity possible.

S Series is available with several output shafts, including the useful through hole version. With internal diameter of 110 mm, the flow capacity is superior and a vast amount of material can be fed through motor. Strong tapered roller bearings in S Series handle extreme axial and radial loads.







# Reliable drives

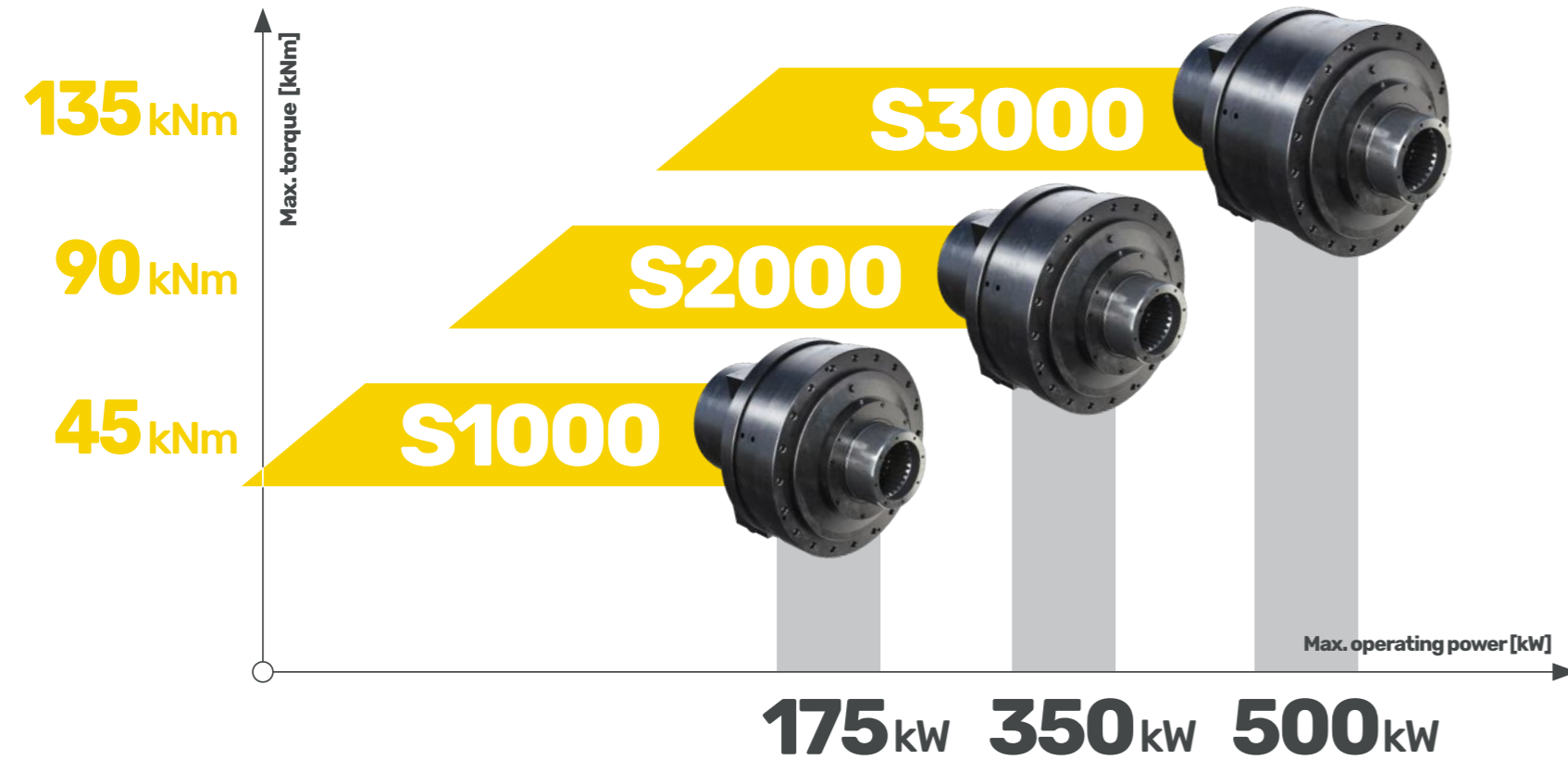
## For challenging conditions

Black Bruin S Series motor with a powerful brake is typically used as a direct winch drive in various marine and offshore applications. The motor runs at constant torque from low to high speeds. Motor can be hydraulically freewheeled when needed.

S Series is designed to operate reliably under demanding conditions and environments. The durable triple-sealing design protects the motor from dirt and moisture, thus protecting the entire hydraulic system.

The powerful (95 kNm) load-holding brake keeps the load safely and securely and it can be used in emergency situations.





### High working pressure

S Series is designed for high pressure, up to 450 bar. This allows optimal component sizing and gives flexibility to hydraulic system design.

### Power and torque

S Series offers displacements from 4400 ccm up to 18900 ccm. The radial piston-cam ring design is precisely balanced, providing a constant ripple-free output torque even at low speeds.

**“The Black Bruin powered drills outperform any of our other drills we have in our fleet, hands down!”**

Joe Gruber, Goettle, Inc.

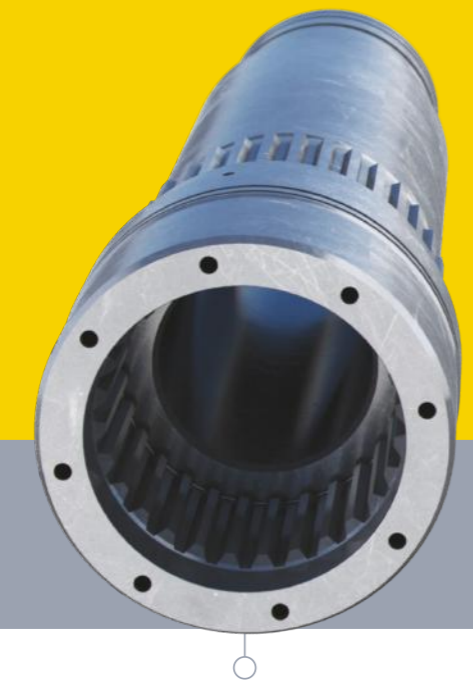




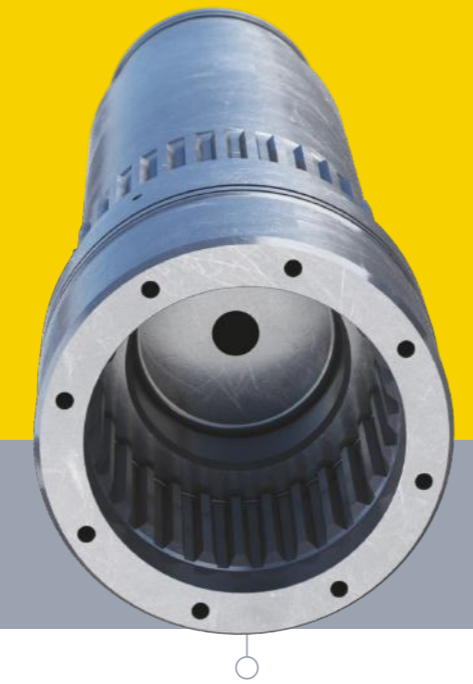
# Various output **Shafts**



**External splines**  
Through shaft



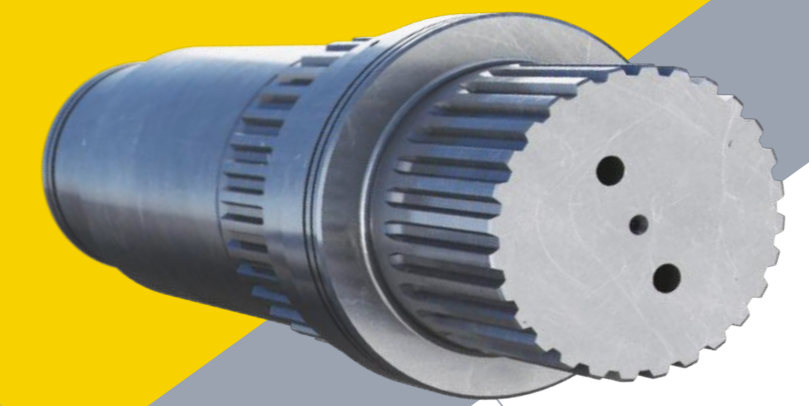
**Internal splines**  
Through shaft



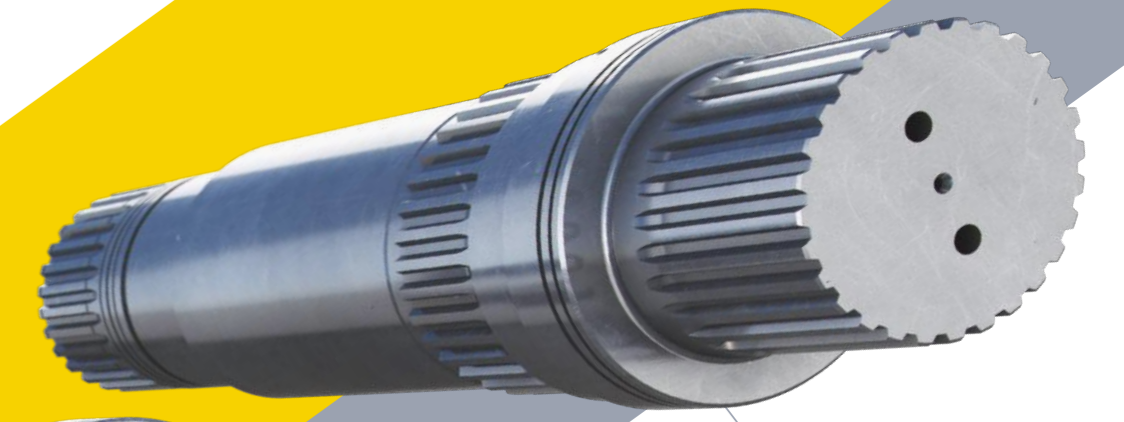
**Internal splines**



**Shrink disc**



**External splines**  
Solid shaft



**External splines**  
Solid shaft, motors with brake



# Features

## ● High load capacity

Optimally placed tapered roller bearings give a high radial and axial load capacity.

## ● Multi-speed function

Superior productivity with shift-on-the-go 2-speed function.

## ● Speed sensor

All S Series motors can be equipped with a speed sensor with direction detection.

## ● Modular design

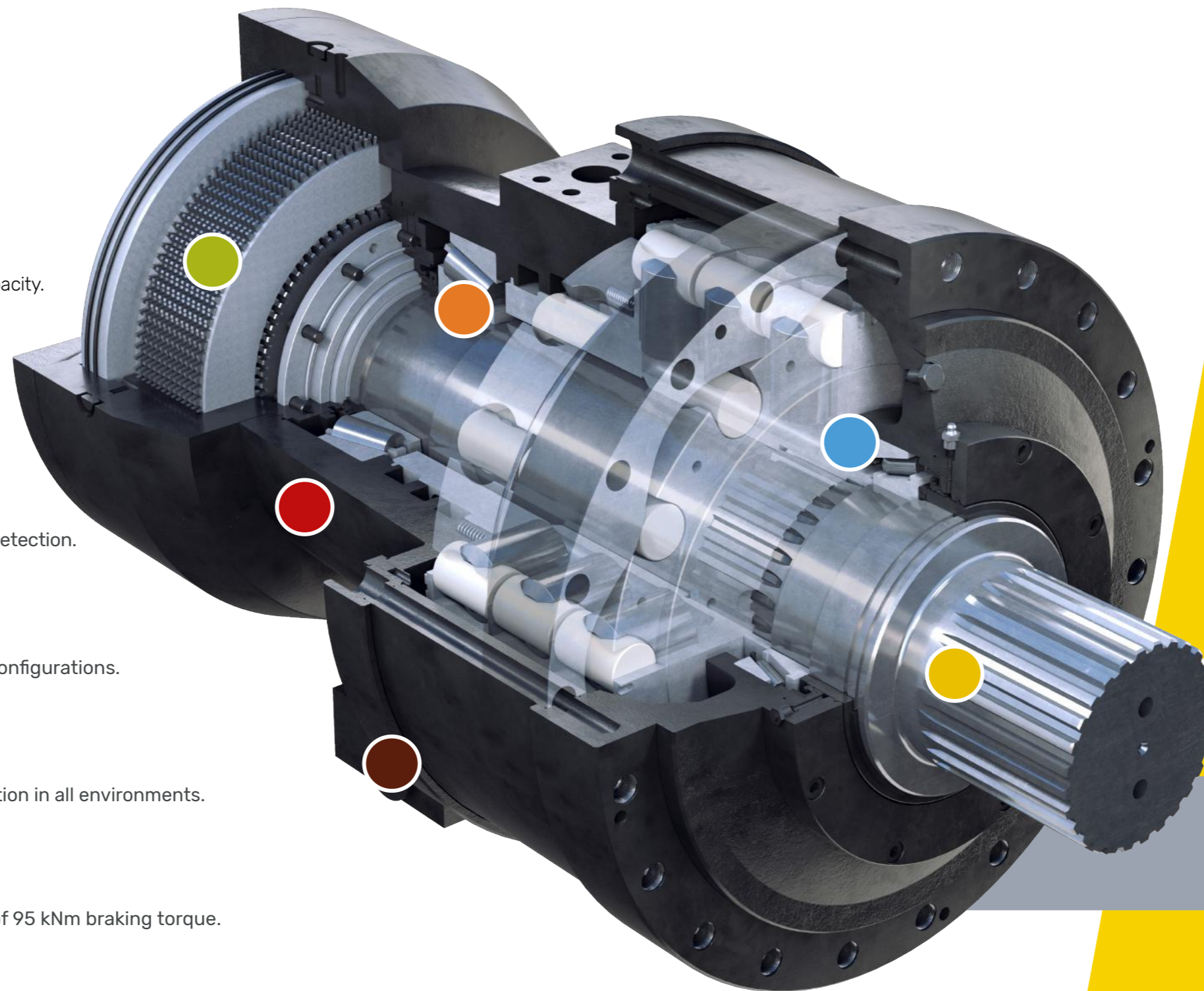
Flexibility in motor design and service. One frame with various shaft configurations.

## ● Well-sealed structure

The triple-sealing design protects the motor and ensures reliable operation in all environments.

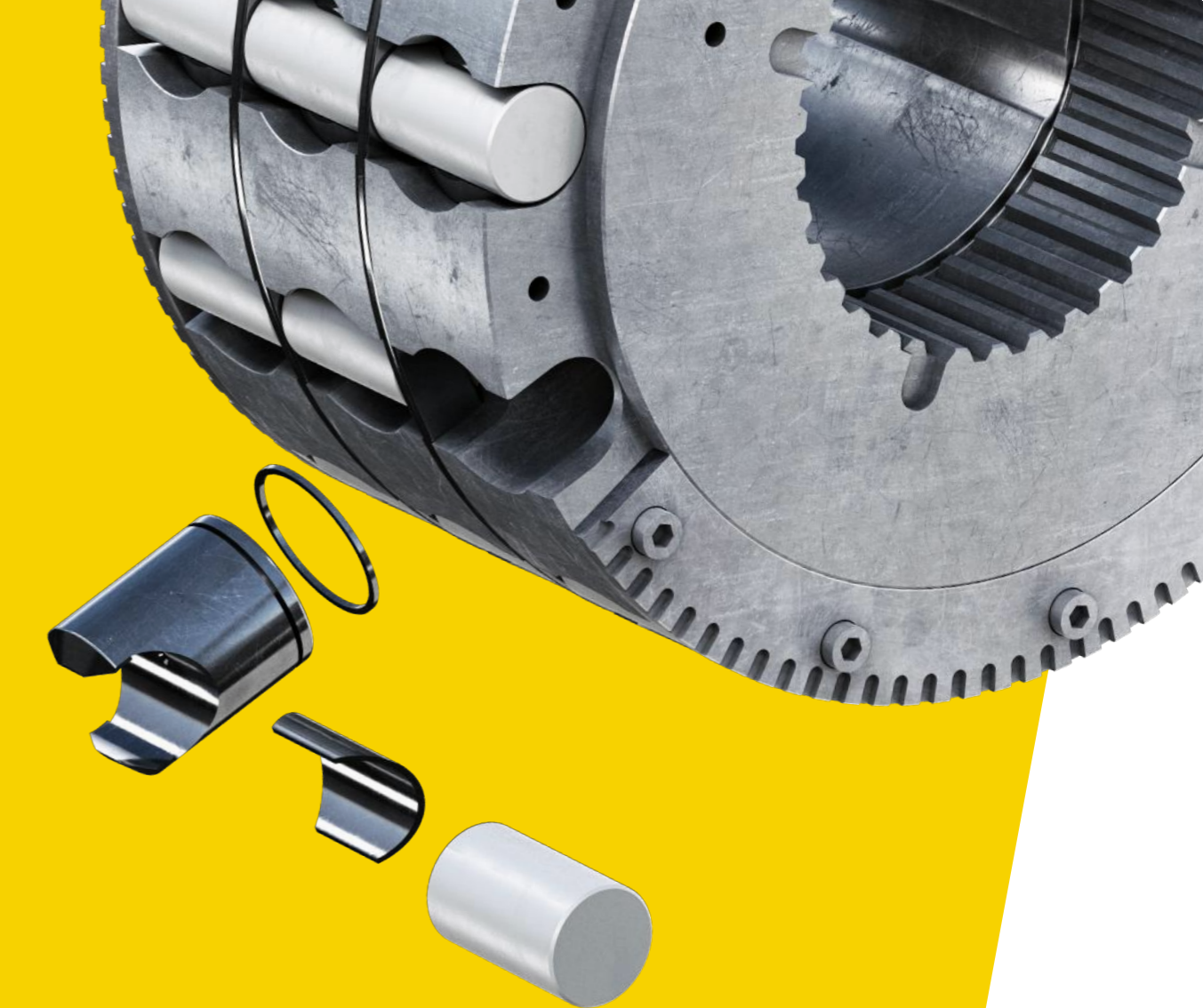
## ● Strong brake

The spring-applied, hydraulic release wet multi-disc brake is capable of 95 kNm braking torque.



**Robust piston design with improved serviceability**

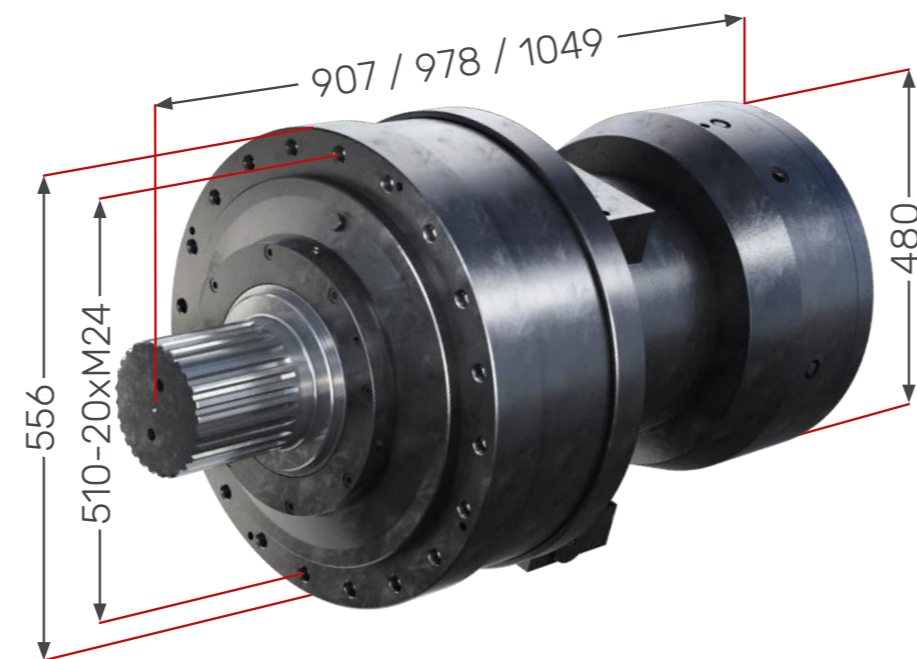
Piston design is engineered to last a lifetime!





# S1100/S2100/S3100

## Motors with brake

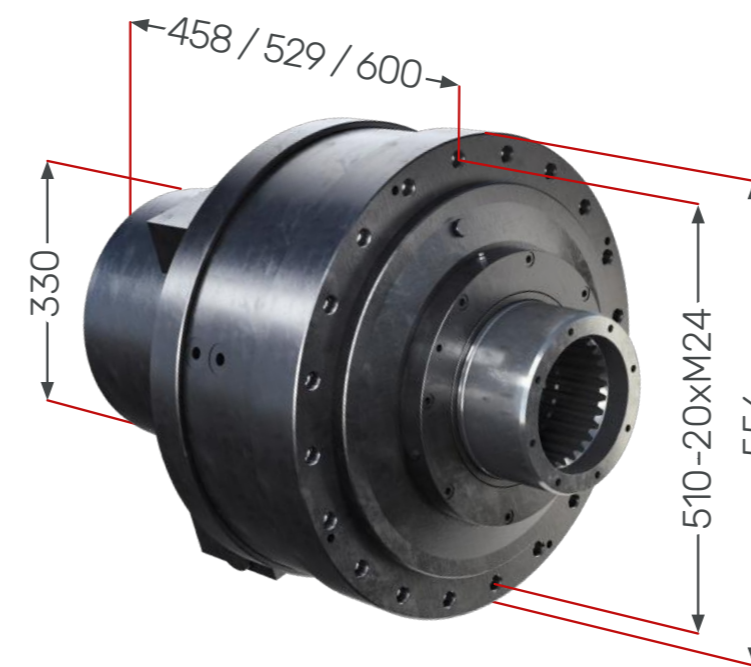


Options	S1100	S2100	S3100
1-speed	X	X	X
2-speed valve	X	X	X
Shaft type			
External splines, solid shaft	X	X	X

Technical data	S1100	S2100	S3100
Displacement [ccm]	4400 / 6300	8800 / 10000 / 12600	15000 / 18900
Max. theoretical torque [Nm]	31500 / 45100	63000 / 71600 / 90200	107400 / 135300
Max. torque with 100 bar [Nm]	7000 / 10000	14000 / 15900 / 20000	23900 / 30000
Max. operating power [kW]	175	350	500
Max. rotating speed [rpm]	180	130 / 110 / 90	75 / 60
Max. working pressure [bar]	450	450	450
Weight [kg]	748 - 766	850 - 868	957 - 975
Brake torque [Nm]	55000	95000	95000

# S1000/S2000/S3000

## Motors without brake




Options	S1000	S2000	S3000
1-speed	X	X	X
2-speed valve	X	X	X
Shaft type			
Internal splines	X	X	X
Internal splines, through shaft	n/a	X	X
External splines, through shaft	n/a	X	X
External splines, solid shaft	n/a	X	X
Shrink disc	n/a	X	X

Technical data	S1000	S2000	S3000
Displacement [ccm]	4400 / 6300	8800 / 10000 / 12600	15000 / 18900
Max. theoretical torque [Nm]	31500 / 45100	63000 / 71600 / 90200	107400 / 135300
Max. torque with 100 bar [Nm]	7000 / 10000	14000 / 15900 / 20000	23900 / 30000
Max. operating power [kW]	175	350	500
Max. rotating speed [rpm]	180	130 / 110 / 90	75 / 60
Max. working pressure [bar]	450	450	450
Weight [kg]	430 - 448	540 - 618	642 - 725

Visit [www.blackbruin.com](http://www.blackbruin.com) for more information or contact [sales@blackbruin.com](mailto:sales@blackbruin.com)



The image shows a close-up of a dark, textured surface, likely a piece of equipment or a bag. On the left, there is a cylindrical metallic component. The main surface is dark and has a fine, pebbled texture. In the center-right, the words "Black Bruin" are printed in a bold, white, sans-serif font. The word "Black" is on the top line, and "Bruin" is on the bottom line. A small red square is positioned above the letter 'i' in "Bruin".

**Black  
Bruin**



Your local **Black Bruin** distributor:

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