

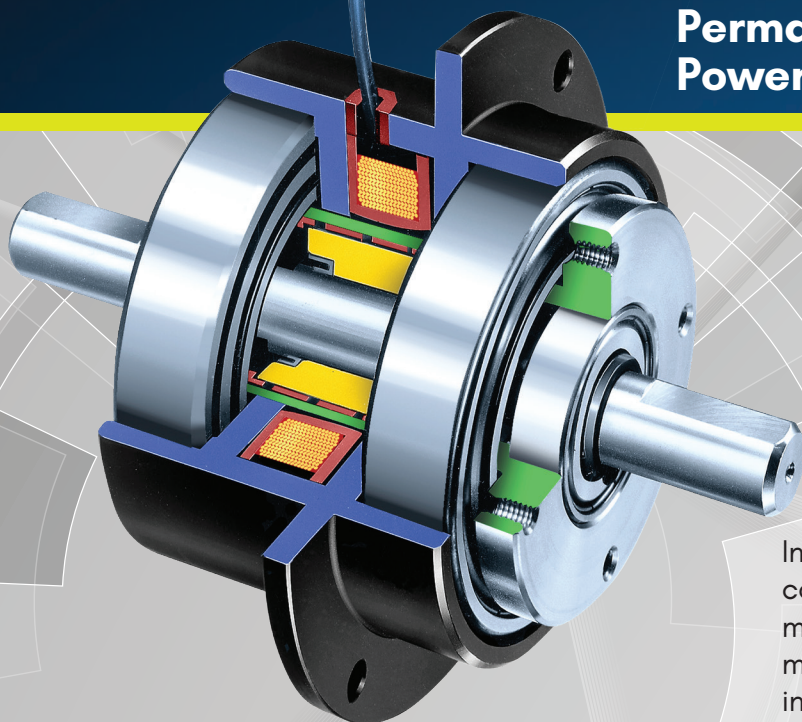


# Magnetic Particle and Hysteresis Clutches/Brakes for Tension and Torque Control



"What You Need in a Clutch®"

# Permanent Magnet and Powered Hysteresis Clutches/Brakes



Ogura Provides  
**Innovative Solutions**  
That Meet Your Challenges

*Both permanent magnet and powered units do not create wear particles, so they are ideally suited for clean room and medical environments, especially medical packaging. These units can be adjusted to any torque value within their range and can provide constant slip for precise torque control in the most demanding applications.*

Industrial mobilization throughout the world continues to accelerate. Where products are manufactured is not as important as who is manufacturing the products. This is especially true in the field of industrial products. Ogura Clutch has been developing clutch and brake technology for over 80 years and has developed over 7,000 different clutch and brake models and holds a number of clutch and brake patents.

Ogura is driven by the "monozukuri spirit" which means craftsmanship in both design and manufacturing. With our extensive knowledge base, we help our customers turn their ideas into reality.

**High Quality** - Quality of design and manufacture are Ogura's highest priorities. Products are set not only to meet, but to also exceed the highest demands of our global customers.

**Manufacturing Technology** - Ogura currently has 14 worldwide production facilities to meet the global needs of our customers and deliver the best value per manufacturing location.

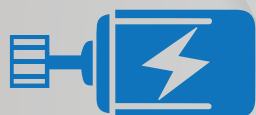
**Research and Development** - Product planning with a clear understanding of customer needs and expectations aligned with overall market trends keeps us in the forefront of clutch and brake design.



Network Printers



Unwind/Rewind Reels



Motor Testing



Coil Winding

For detailed specifications for the entire Magnetic Particle and



# Ogura – quality you can trust and depend on

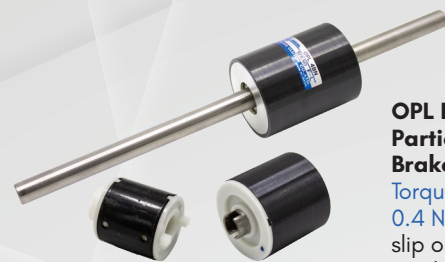


## Permanent Magnet and Powered Hysteresis Clutches and Brakes

Ogura manufactures both permanent magnet and powered hysteresis clutches and brakes. Permanent magnet units are ideal for limiting torque in various drivetrains. Small units are suited for network printers, ATMs and ticket kiosks while larger units are used as a brake to provide smooth tension control to film, foil and wire.

Powered magnetic particle units give extremely fast response and since torque is almost linear to the current/voltage applied, precise tension control can be achieved with a very simple control structure.

Powered pure hysteresis units have a very wide controllable range and are ideally suited for motor test stands and for applying loads on robotic equipment. Since there is no wear from the applied torque, units have extremely long life.



OPL Clutch/Brake

### OPL Permanent-Magnet, Mag-Particle, Slip Clutches and Drag Brakes

**Torque Range:** 0.17~3.5 in-lbs / 0.02~0.4 Nm. Designed for continuous slip or overload protection. Torque is produced magnetically, eliminating high breakaway torques that can occur with mechanical devices. They do not produce wear particles – no contamination. Torque is consistent over a given speed range. Units are provided with hollow bores or with stainless steel customized shafts.

### PHT Permanent-Magnet Hysteresis Clutch/Brake

**Torque Range:** 0~62 in-lbs / 0~7 Nm. Units can be configured as a clutch or a brake depending upon mounting. Torque is produced magnetically and is consistent over a given speed range. No wear provides extremely long life and no contamination. Each unit has an adjustable torque range that can be set by the user.



PHT Clutch/Brake



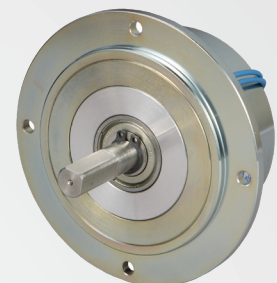
OPC Clutch

### OPC Electromagnetic Mag-Particle Clutch

**Torque Range:** 4.4~71 in-lbs / 0.5~8 Nm. The magnetic particle clutch is designed for industrial applications requiring fast response time and stable torque. Units can be set for continuous slip which makes them ideal for tensioning applications. Voltage to torque is linear, so output torque can be easily controlled. Units are sealed and do not produce any wear particles.

### OPB-N Electromagnetic Mag-Particle Brake

**Torque Range:** 4.4~221 in-lbs / 0.5~25 Nm. The magnetic particle brake designed for industrial applications provides fast response time and stable torque. Units can be set for continuous slip which makes them ideal for tensioning applications. Voltage to torque is linear, so output torque can be easily controlled. Larger units have optional fan kits for added cooling.



OPB Brake



HC Clutch

### HC Series Electromagnetic Hysteresis Clutches

**Torque Range:** 0.4~8.9 in-lbs / 0.05~1 Nm. Torque is independent of slip speed and can be controlled by varying the current. Since there is no frictional contact between the magnets, the units have an extremely wide controllable torque range and are ideally suited for fine wire tension control.

### HB Series Electromagnetic Hysteresis Brakes

**Torque Range:** 0.4~8.9 in-lbs / 0.05~1 Nm. Torque is independent of slip speed and can be controlled by varying the current. Since there is no frictional contact between the magnets, the units have an extremely wide controllable torque range and are ideally suited for load and motor testing machinery.



HB Brake

For Hysteresis Clutch/Brake product line, visit [Ogura-Clutch.com](http://Ogura-Clutch.com)

# Other solutions available from Ogura



**1 Power off brakes**  
to hold or stop in the  
absence of electrical  
power



1

**2 Multiple disc  
and tooth  
clutches**  
high torque,  
can run either  
dry or in oil



4

**4 Mobile equipment clutches**  
for use with gas and diesel  
engines on outdoor power  
equipment and engine driven  
components



2



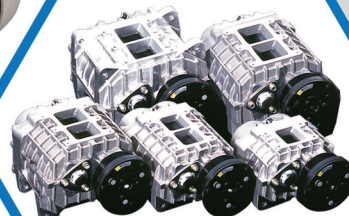
6

**3 Industrial  
clutches / brakes**  
single face  
quick response,  
high cycle



3

**5 Superchargers**  
for increased  
engine  
performance  
and reduced fuel  
consumption



5

**6 Tension control**  
hysteresis and magnetic  
particle for precise torque  
control

## Ogura has over 7,000 Standard and Custom Electromagnetic Clutch and Brake Designs.

Founded in 1938, Ogura has over 80 years' experience in the manufacture and design of clutches and brakes. Ogura is currently the world's largest manufacturer of electromagnetic clutches and brakes producing around 30 million units per year with over 7,000 standard and custom designs available from 14 manufacturing ISO certified facilities throughout the world.

Visit [www.ogura-clutch.com](http://www.ogura-clutch.com) to learn more.

Visit our YouTube channel for an extensive library of installation, maintenance, and how-they-work animated videos



<https://www.youtube.com/user/oguraindustrial>



"What You Need in a Clutch®"

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[www.ogura-clutch.com](http://www.ogura-clutch.com)