Explanation of Terminology

Rated Torque

The ammount of torque that the Couplicon® is able to continuously transmit.
Rated torque values take into consideration load fluctuations that occur during operation. Therefore, it is unnecessary to make additional compensations for load fluctuation when making product selections.
Ensure that the selected size's rated torque is higher than the load torque values that occur during continuous operation.

Maximum Torque

The ammount of torque that the Couplicon® is able to continuously transmit .
In principle, the maximum torque is double the rated torque.

Maximum Rotational Frequency

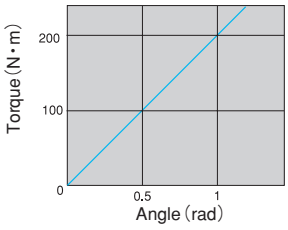
The maximum allowable rotational frequency of the coupling.
Couplings have been tested at a peripheral velocity of 33 m/s.
We confirmed that no damage resulted. (MOHS MKM MWBS not tested)
Please be aware that vibrations from imbalances may occur when operating at high rotational frequencies.

Moment of Inertia

The moment of inertia measures the torque necessary for a coupling to rotate.
The smaller the moment of inertial, the less torque is required to start and stop the coupling rotating.

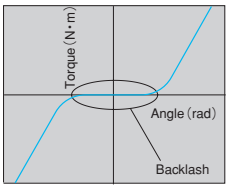
Static Torsional Stiffness

A coupling's stiffness relative to torsion. The slope of the graph represents the static torsional stiffness.
This value shows the static torsional stiffness of the entire Couplicon® including the hubs, not just the flexible parts.
The greater the static torsional stiffness, the greater the product's response.
XBW XBS XUT MSX MDW and MDS have high static torsional stiffness ratings and excellent response.



Backlash

Lost motion in the rotational direction.
In cases where high precision positioning is necessary, please select a Couplicon® product with zero backlash.

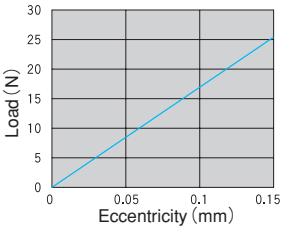


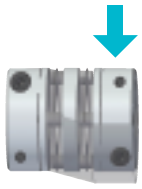
Misalignment

Misalignment is a measure of the error of misalignment of the shaft center. There are three types of misalignment: parallel misalignment, angular misalignment, and shaft end-play.
For more detailed information, please refer to For Better Drive on page 35.

Eccentric Reaction Force

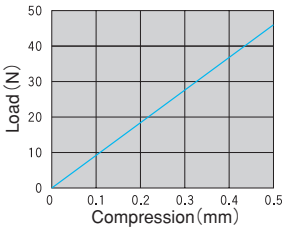
The reaction force that occurs when the Couplicon® is parallelly decentered.
The smaller the eccentric reaction force, the less force is applied to the bearing.
XUT MOL MOS MOHS and MOP feature small eccentric reaction forces and can reduce the load on bearings.





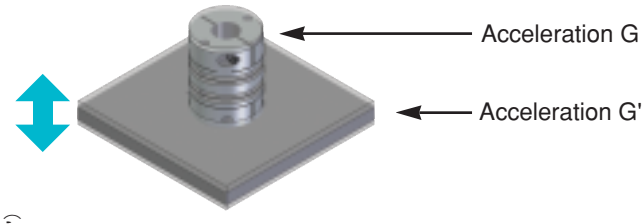
Thrust Reaction Force

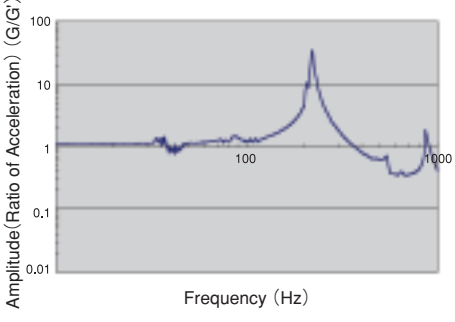
The force that occurs when the Couplicon® is compressed in the thrust direction.
The smaller the thrust reaction force, the less stress is applied to the motor.



Natural Frequency

The Couplicon®'s resonating frequency.
XGT XGS XUT MJT MOL MOS MOHS and MOP have low natural frequency amplitudes and feature excellent vibration absorption.





Electrical Insulation

The electrical insulative properties of Couplicon® between the two hubs.
XGT XGS MJT MOL MOS MOHS MOP MSXP and MSF use resin material between the hubs and feature superior electrical insulation.

Constant Velocity

Fluctuation of speed per rotation.
In general, as misalignments become larger, constant velocity decreases.
MFB and MWBS feature excellent constant velocity even when misalignments are present. This makes them ideal for sensor equipment such as encoders.

Allowable Operating Temperature

The temperature range that the Couplicon® is able to function under. The following chart shows the allowable operating temperatures for couplings including resin in their construction.

Product Code	Allowable Operating Temperature
XGT/XGS	−20℃～ 80℃
MJT	−20℃～ 60℃
MOL	−20℃～ 80℃
MOS	−20℃～ 80℃
MOHS	−20℃～200℃
MOP	−20℃～120℃
MSXP	−20℃～ 80℃
MSF	−20℃～ 60℃

Temperature Correction Factor

Factor used to determine rated torque and maximum torque after compensation for operating temperature.
Rated torque, and Maximum torque specifications for XGT XGS MJT MOL MOS and MSF change under some operating temperatures.
If operating temperature excedes 30℃, please adjust rated torque and maximum torque as detailed in the table below.

Air Temperature	Temperature Correction Factor
−20℃～ 30℃	1.00
30℃～ 40℃	0.80
40℃～ 60℃	0.70
60℃～100℃	0.55

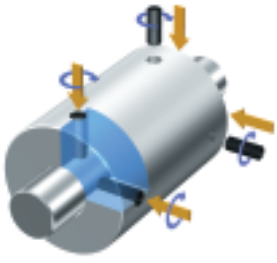
MOHS MOP and MSXP feature superior heat resistant properties. Rated torque and maximum torque are not effected by temperature. Therefore, compensation for temperature is unnecessary.

Attachment

There are five methods of coupling attachment available: Setscrew, Clamp, Split, Semi-Split and Keyway.
Please select the best coupling for your intended use.

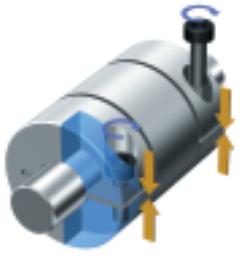
❶ Setscrew Type

This low cost type is the most conventional attachment method. However, since the screw makes direct contact with the shaft, this may cause damage to the shaft and make the coupling difficult to remove.



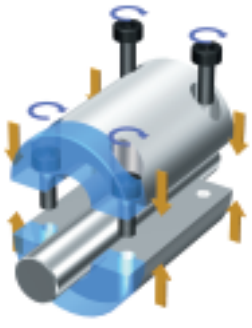
❷ Clamp Type

This type is attached to the shaft by clamping on the coupling and tightening the screws. Attachment and removal is easy and there is no damage to the shaft.



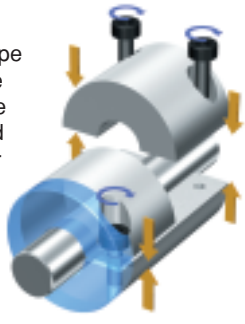
❸ Split Type

This type is made of two completely separate parts, making it easy to attach and remove without affecting the equipment's adjustments. Additionally, there is no damage to the shaft.



❹ Semi-Split Type

This type consists of a clamp type hub on one side and a split type hub on the other side. This type allows equipment to be installed into the split hub while the other shaft remains fixed firmly in place with the clamp hub.



❺ Keyway Type

This type, like the setscrew, employs the most conventional attachment method and is used to transmit reletively high torque. Keyways are used in conjunction with setscrew and clamp hubs to prevent shifting in the axial direction.