Explanation of Terminology

Rated torque

This is a torque value that can be continuously transmitted by Coupling.
This is a value with load variation during operation considered and does not require correction of the rated torque at the time of selection(Except for Oldham Couplings).
Select the Coupling so that the load torque generated by continuous operation may not be more than the rated torque.

Max. torque

This is a torque value that can be instantaneously transmitted by Coupling.

Slip Torque

This is the load torque when the round shaft begins to slip against the coupling when mounted on a coupling at the specified screw tightening torque.
The load torque to the coupling must be below the slip torque. Slip torque changes with usage conditions. Always carry out tests under performance conditions similar to actual conditions in advance.

Misalignment

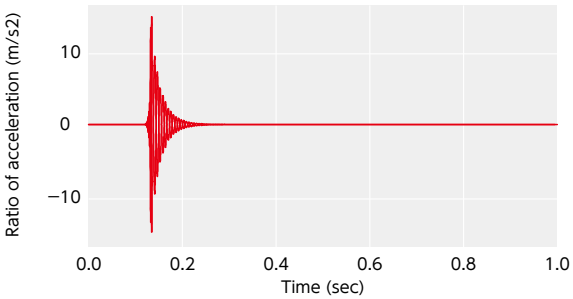
This is a shaft center error.
There are three types of misalignment: eccentricity, argument, and end-play.
For details, please refer to Mounting and Maintenance.

Max. rotational frequency

This is a maximum rotational frequency available for Coupling.
A value calculated based on peripheral speed 33 m/s is described and we have confirmed that this frequency does not damage the unit by a test. (Except for MOM MOHS MWBS)

Damping ratio

This is a parameter that represents the damping property of vibration amplitude.
XGT2 XGL2 XGS2 have a large damping ratio, thus enabling the servomotor gain to be raised.

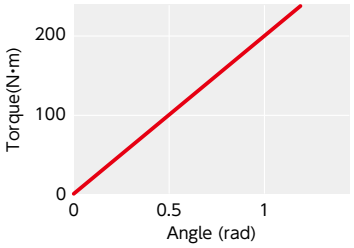


Moment of Inertia

This is a value that indicates the rotational difficulty of Coupling.
Smaller moment of inertia reduces the load torque at the time of start and stop.

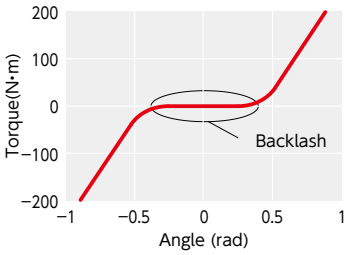
Static Torsional Stiffness

This is rigidity against torsion of Coupling and the inclination shown in the graph indicates the static torsional stiffness.
Static torsional stiffness for the entire Coupling including not only deflection part but also hub is described here.



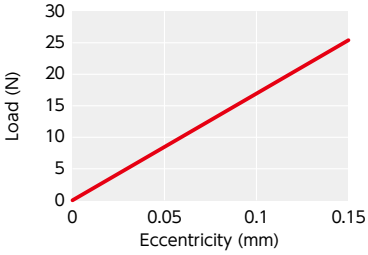
Backlash

This is a backlash against the rotational direction of Coupling.
When high precision positioning is required, select a Coupling with zero backlash.



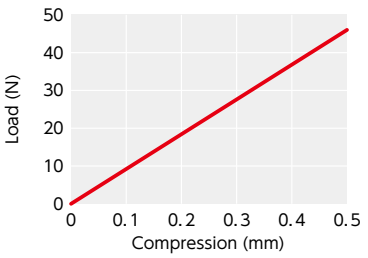
Eccentric reaction force

This is a force generated when making Coupling in eccentric condition.
As the eccentric reaction force becomes smaller, the force acting on the shaft bearing also becomes smaller.



Thrust Reaction Force

This is a force generated when compressing Coupling in the shaft direction.
As the thrust reaction force becomes smaller, the force acting on the motor also becomes smaller.



Electrical insulation

This is insulation against electricity between both hubs of Coupling.
The electrical insulation value of Coupling with rubber/resin used between both hubs is as shown in the following table.

Product Code	Electric resistance value
XGT2 (O.D. ϕ56 or Less) / XGL2 / XGS2	Not less than 2 MΩ
XGT2 (O.D. ϕ68) / XGT / XGL / XGS	Not less than 10 kΩ and not more than 1 MΩ
MJC / MJS / MJB	Not less than 2 MΩ
MOR / MOL / MOS	Not less than 2 MΩ
MOHS	Not less than 2 MΩ
MOP	Not less than 2 MΩ
MSXP	Not less than 2 MΩ
MSF	Not less than 2 MΩ

Constant velocity

This is speed unevenness for one rotation of Coupling.
In general, the higher the misalignment is, the lower the constant velocity becomes.
MFB **MWBS** are superior in constant velocity even when misalignment exists and is appropriate for detection devices such as encoder.

Allowable operating temperature

This is a temperature available for Coupling.
The allowable operating temperature for rubber/resin-used Coupling is as shown in the following table.

Product Code	Allowable operating temperature
XGT2 (O.D. ϕ56 or Less) / XGL2 / XGS2	−10℃ - 120℃
XGT2 (O.D. ϕ68) / XGT / XGL / XGS	−20℃ - 80℃
MJC / MJS / MJB	−20℃ - 60℃
MOC / MOR / MOL / MOS	−20℃ - 80℃
MOHS	−20℃ - 200℃
MOP	−20℃ - 120℃
MSXP	−20℃ - 80℃
MSF	−20℃ - 60℃

Temperature correction factor

This is a factor multiplied to the rated torque and max. torque depending on the operating temperature of Coupling.
In **XGT2** **XGL2** **XGS2** **XGT** **XGL** **XGS** **MJC** **MJS** **MJB** **MOC** **MOR** **MOL** **MOS** **MSF**, the rated torque and max. torque vary. If ambient temperature exceeds 30℃, be sure to correct the rated torque and max. torque with correction factor shown in the following table.
MOHS **MOP** **MSXP** are superior in heat resistance and the rated torque and max. torque do not vary depending on the operating temperature. Correction by temperature correction factor is not required.

Ambient temperature	Temperature correction factor
−20 - 30℃	1.00
30 - 40℃	0.80
40 - 60℃	0.70
60 - 120℃	0.55

Attachment

There are seven types of shaft attachment methods as follows. Select a method according to your needs.

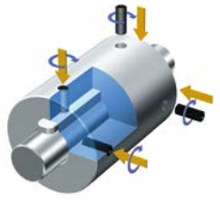
❶ Set screw type
This is low cost and most common attachment method. However, since the screw point directly contacts the shaft, note that it may damage the shaft or make it difficult to remove the unit.

❷ Clamping type
The bore is contracted by tightening force of the screw to clamp the shaft. Mounting and removal can be easily conducted, which does not damage the shaft.

❸ Split type
The bore portion can be completely divided. Therefore, it can be easily mounted or removed without moving the device. In addition, the shaft is not damaged.

❹ Semi-split type
This is an attachment method in which one side of the hubs is clamping type and the other side is split type. The device can be connected only on the split type side while keeping the clamping type side attached on the shaft.

❺ Key type
As with set screw type, this is a general attachment method and can be applied to the transmission of relatively high torque. To prevent the movement in the shaft direction, this is used together with set screw type and clamping type.



❻ Bushing type
Attachment method using taper wedge effect enables secure and stable attachment. This is suitable to high torque transmission and is the most appropriate for the spindle of a machine tool.

❼ Adapter + Clamping type
This is a type made by inserting an adapter into the clamping type so as to be applied to 1/10 taper shaft of the servomotor.