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Couplings

Select from the table	P.19	Serration Couplings	P.205
Select based on motor	P.21	Rigid Couplings	P.207
Select based on device to use	P.22	Cleanroom,Vacuum,Heat Resistance ...	P.225
High-Gain Rubber Couplings	P.27	Flexus	P.249
Disk Couplings	P.63	Mechanical Parts	P.251
Slit Couplings	P.97	Explanation of Terminology	P.254
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Cross Joint Couplings	P.155	For better drive	P.259
Oldham Couplings	P.161	Safety Precautions	P.260
Bellows Couplings	P.193		



Coupling Selection

1 Select from the table

2 Select based on motor
→ P.21

3 Select based on device to use
→ P.22

• Custom-made parts

Super bellows P.204



Completely custom-made coupling with high precision welded bellows can be manufactured.

Flexus P.249



This is a multifunctional part made of various materials with slits and works as a spring.

• Mechanical Parts

Photo Sensor Flange Damper Roll

MPF P.251



MDR P.252



High-Gain Rubber Coupling						
Product Code	XGT2	XGS2	XGL2	XGT	XGS	XGL
Page	P.29	P.29	P.29	P.45	P.45	P.45
Shape	Standard	Short	Long	Standard	Short	Long
Zero Backlash	○	○	○	○	○	○
High gain supported*	★	★	★	○	○	○
High torque	★	★	★	★	★	★
High torsional stiffness	○	○	○	○	○	○
Allowable Misalignment	○	○	○	○	○	○
Vibration absorption	★	★	★	○	○	○

*This is available for high gain of the servomotor.

★: excellent ○: very good ○: good

Disk-Coupling						
Product Code	XHW / XHW-L	XHS	XBWS	XBSS	MDW / MDS	MHW / MHS
Page	P.65	P.71	P.77	P.83	P.89 / P.91	P.93 / P.95
Shape	Standard/Long	Short	Standard	Short	Standard/Short	Standard/Short
Zero Backlash	○	○	○	○	○	○
High gain supported*	○	○	○	○	○	○
High torque	○	○	○	○	○	○
High torsional stiffness	★	★	○	○	○	○
Allowable Misalignment	○	○	○	○	○	○
Vibration absorption	○	○	○	○	○	○

★: excellent ○: very good ○: good

Slit-Coupling				Jaw-Coupling		
Product Code	MSX	MST / MSTs	MWS / MWSS	MSXP-C-W-SP	MJC	MJS
Page	P.97	P.105	P.115	P.123	P.125	P.139
Shape	Standard	Standard	Short	NEW	Standard	Short
Zero Backlash	○	○	○	○	○	○
High gain supported*	○	○	○	○	○	○
High torque	○	○	○	○	○	○
High torsional stiffness	○	○	○	○	○	○
Allowable Misalignment	○	○	○	○	○	○
Vibration absorption	○	○	○	○	○	○

*This is available for high gain of the servomotor.

★: excellent ○: very good ○: good

Cross Joint-Coupling			Oldham-Coupling		
Product Code	XUT	MOR	MOM	MOL	MOS
Page	P.155	P.161	P.173	P.187	P.187
Shape	Standard	Standard	Standard	Standard	Short
Zero Backlash	○	○	○	○	○
High gain supported*	○	○	○	○	○
High torque	○	○	○	★	○
High torsional stiffness	○	○	○	★	○
Allowable Misalignment	○	★	○	★	★
Vibration absorption	○	○	○	○	○

★: excellent ○: very good ○: good

Bellows-Coupling			Serration-Coupling		Cleanroom, Vacuum, Heat Resistant Coupling	
Product Code	MBB	MF / MFBS	MWBS	MSF	XSTS	XWSS
Page	P.193	P.195	P.201	P.205	P.227	P.227
Shape	NEW	Standard	Standard	Standard	Standard	Short
Zero Backlash	○	○	○	○	○	○
High gain supported*	○	○	○	○	○	○
High torque	○	○	○	○	○	○
High torsional stiffness	○	○	○	○	○	○
Allowable Misalignment	○	○	○	○	○	○
Vibration absorption	○	○	○	○	○	○

*This is available for high gain of the servomotor.

★: excellent ○: very good ○: good

Rigid-Coupling			
Product Code	XRP	MRG / MRGS	MLR / MLRS
Page	P.207	P.211	P.219
Shape	Standard	Standard	Long
Zero Backlash	○	○	○
High gain supported*	○	○	○
High torque	○	○	○
High torsional stiffness	○	○	○
Allowable Misalignment	○	○	○
Vibration absorption	○	○	○

★: excellent ○: very good ○: good

2 Select based on motor

1 Select from the table
→ P.193 Select based on device to use
→ P.22

Servomotor & Stepping Motor

• These are couplings suitable to the combination with servomotor or stepping motor.

- High-gain rubber type coupling **XGT2** **XGL2** **XGS2** are superior in vibration absorption and are the most appropriate for the combination in particular with servomotor.

**XGT2** **XGL2** **XGS2** → P.29

- **XHW** **XHS** have high rigidity.
- Also applicable to servomotors with instantaneous max. torque of 350%.

**XHW** → P.65**XHS** → P.71**MSX** → P.97**MJC** → P.125**XUT** → P.155**XRP** → P.207

- Selection based on the rated output of servomotor
The size of coupling to be used can be selected from the rated output of the servomotor.

Rated output (W)	Servomotor Specifications*			Recommended Coupling size				
	Diameter of motor shaft (mm)	Rated torque (N·m)	Instantaneous max. torque (N·m)	XGT2 XGL2	XHW	MSX	MJC-RD	XUT
10	5 - 6	0.032	0.096	15C	19C	16C	14C	15C
20	5 - 6	0.064	0.19	15C	19C	16C	14C	15C
30	5 - 7	0.096	0.29	19C	19C	19C	14C	20C
50	6 - 8	0.16	0.48	19C	19C	19C	20C	20C
100	8	0.32	0.95	19C	19C	19C	20C	25C
200	9 - 14	0.64	1.9	30C	27C	29C	30C	30C
400	14	1.3	3.8	30C	34C	39C	30C	35C
750	16 - 19	2.4	7.2	39C	39C	44C	40C	-

- For the specifications of each product, please refer to the corresponding product pages.
- * Motor specifications are based on general values. For details, please refer to catalogs of each motor manufacturers. Recommended sizes are for the cases where reduction gears are not used.

General-purpose motor

• These are couplings suitable to the combination with general-purpose motor.

**MJC** → P.125**MOR** → P.161**MOM** → P.173**MSF** → P.205

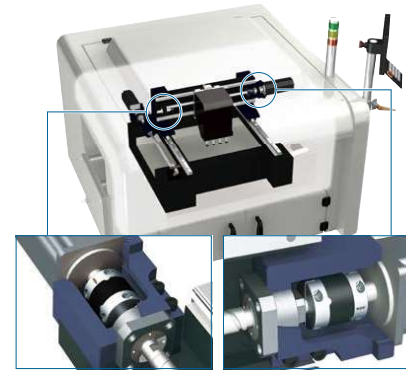
3 Select based on device to use

1 Select from the table
→ P.192 Select based on motor
→ P.21

Surface-Mount Machine

Improved Productivity (High Throughput)

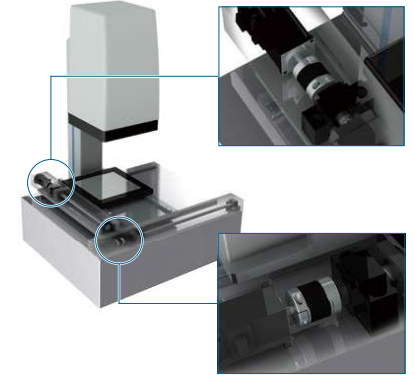
- Selection point: reduced settling time due to the high-gain compatible servo motor

Product used: high-gain rubber type **XGT2** → P.29

CNC Image Measuring Instrument

Improved Measurement Speed

- Selection point: reduced settling time due to the high-gain compatible servo motor

Product used: high-gain rubber type **XGT2** → P.29

Genetic Testing Device

Vibration suppression and low noise of mixing shaft

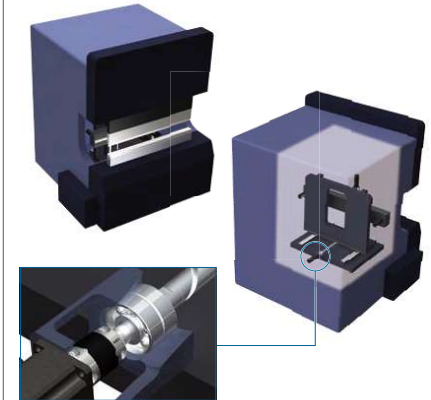
- Selection point: excellent vibration absorption

Product used: high-gain rubber type **XGS2** → P.29

Press Brake

Vibration suppression of back gauge

- Selection point: excellent vibration absorption

Product used: high-gain rubber type **XGT2** → P.29

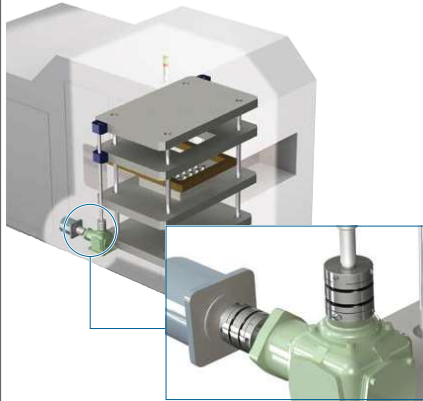
3 Select based on device to use

1 Select from the table
→ P.192 Select based on motor
→ P.21

Vacuum/Compressed Air Mold for Food Containers

High torque transmission, high-precision positioning

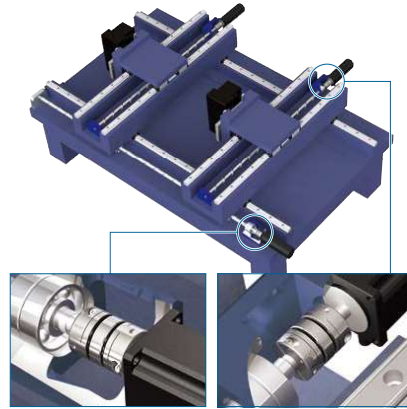
- Selection point: high torque/high torsional rigidity

Product used: disk type **[XHW]** → P.65

Next-Generation Battery Module Assembling Device

High-speed/high-precision positioning

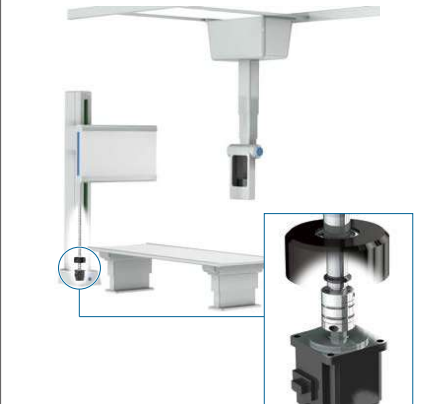
- Selection point: high torsional rigidity

Product used: disk type **[XHW]** → P.65

Medical Diagnostic Imaging Device

Stable Speed Control

- Selection point: high torsional rigidity

Product used: disk type **[XHW]** → P.65

Deposition Transport Device for Solar Cells

Long distance between motor shaft and driven shaft

- Selection point: special cleanroom specifications with a longer coupling length
→ P.807 Cleanroom Wash / Cleanroom Packing Service

Product used: disk type **[XBWS]** → P.77

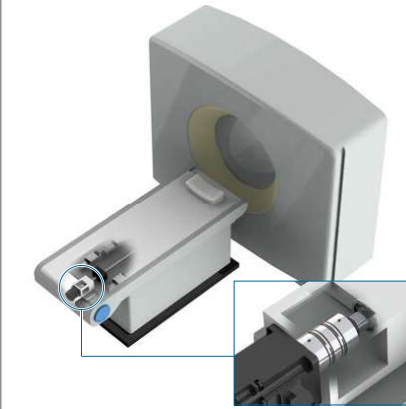
3 Select based on device to use

1 Select from the table
→ P.192 Select based on motor
→ P.21

CT Scan

Corrosion Resistance

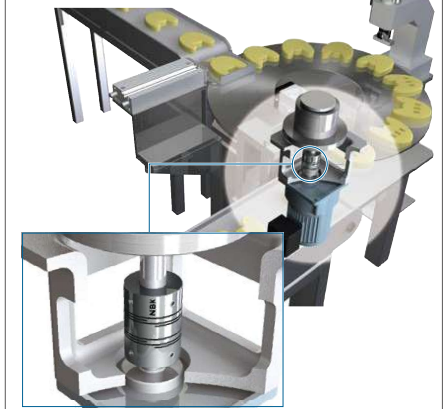
- Selection point: all-stainless steel couplings

Product used: slit type **[MSTS]** → P.105

Confectionery Equipment

Corrosion Resistance

- Selection point: all-stainless steel couplings

Product used: slit type **[MSTS]** → P.105

Laser Marking Device

High-speed/high-precision positioning

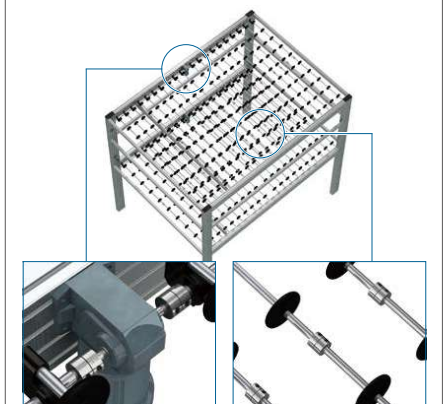
- Selection point: high torsional rigidity

Product used: slit type **[MSX]** → P.97

Large Glass Cleaning/Transport Device

Chemical Resistance

- Selection point: all-stainless steel couplings

Product used: slit type **[MRGS]** → P.211

3 Select based on device to use

1 Select from the table
→ P.192 Select based on motor
→ P.21

Machine Tools

High-speed, high-torque spindle

- Selection point: high-speed rotation and high-torque transmission

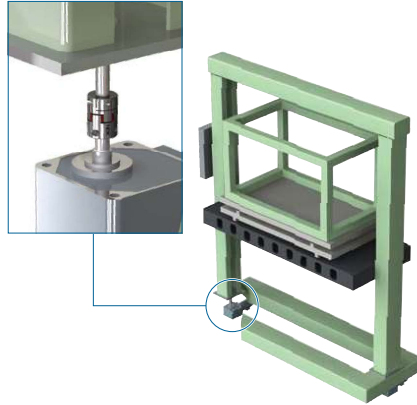


Product used: jaw type [MJB] → P.147

FPD Transport Stocker Lifting Device

Downsized drive module

- Selection point: high torque and compact size



Product used: jaw type [MJC] → P.125

Coin Feeder

Reduced equipment assembly and adjustment time

- Selection point: easy segmentation/large allowable misalignment

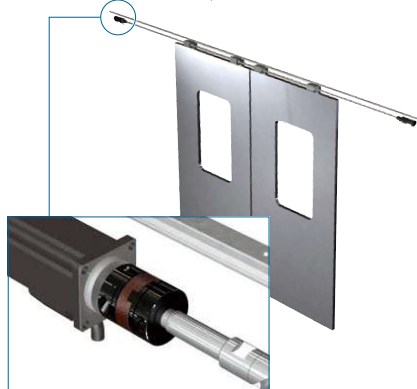


Product used: Oldham type [MOR] → P.161

Airtight Sliding Door Open/Close Device

Improved reliability of equipment operation

- Selection point: high torque transmission via metal spacer



Product used: Oldham type [MOM] → P.173

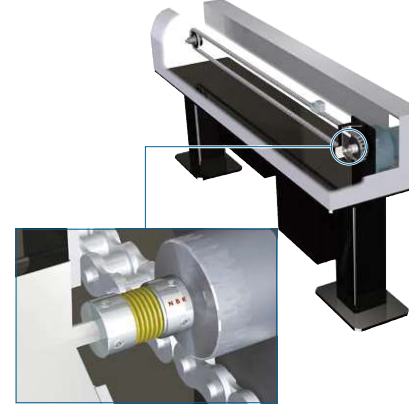
3 Select based on device to use

1 Select from the table
→ P.192 Select based on motor
→ P.21

Bar Feeder Encoder

Constant velocity and suppression of shaft radial load

- Selection point: excellent constant velocity and low eccentric reaction force

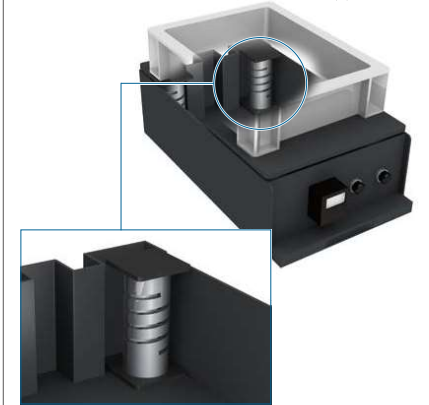


Product used: bellows type [MFB] → P.195

Parts Feeder

Durability and improved positioning reproducibility

- Selection point: arbitrary spring characteristics available to suit the application

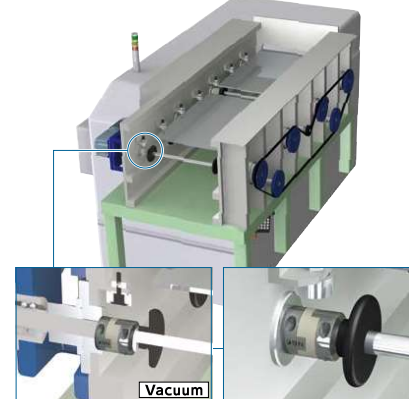


Product used: custom spring component [Flexus®] → P.249

In-line Vacuum Vapor Deposition Equipment

Connection of devices in vacuum chamber and external drive unit

- Selection point: low outgassing/large allowable misalignment

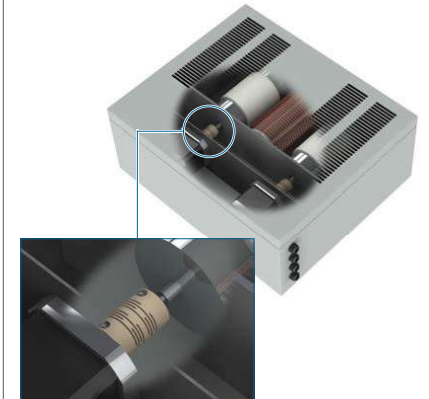


Product used: cleanroom/vacuum/heat resistant type [MOP] → P.243

Matching Box for RF Power

Electrical insulation of vacuum variable capacitor and stepping motor

- Selection point: zero backlash/electrical insulation



Product used: for vacuum variable capacitor/slit type [MSXP] → P.231