

## Not Just Jacks - Joyce Couplings

Couplings can play an important role in a powertrain system. Although not as complex in design as screw jacks or gear boxes, having an understanding of the varieties of couplings available can be helpful.

There are three main types of flexible couplings available through the Joyce line: the Model J Jaw Type, Model S Sleeve Type, and the Model F Flange Type. Each model is available in a variety of sizes and load capacities. Please see your Joyce catalogue (pages 95-96) for model details.

### Model J Jaw Type

Ideal for all kinds of general industrial applications, these couplings are resistant to oil, grease, moisture and contaminants.



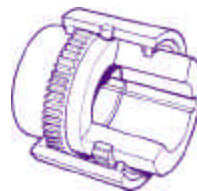
Pros:

- 1) Jaw Type couplings are the least expensive of the three
- 2) This model is the most forgiving when it comes to handling slight system misalignments.
- 3) J couplings require no lubrication.
- 4) Quick to install
- 5) Zero backlash

Cons:

- 1) If the insert fails, the entire coupling may be damaged and require replacement
- 2) To meet the higher end horsepower or torque requirements, the couplings increase dramatically in size.

### Model S Sleeve Type



These geared couplings, available in flex/rigid and full/flex configurations, have greater strength and are more durable than many larger and more expensive couplings on the market.

Pros:

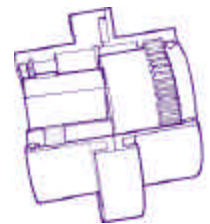
- 1) Offer greater torque capacity than ordinary couplings.
- 2) Greater torsional, radial and angular stiffness
- 3) More physically compact than J Types at higher horsepower or torque ratings
- 4) If the sleeve fails, usually only the sleeve will need replacement, not the entire coupling.

Cons:

- 1) Require lubrication
- 2) More expensive than J Type couplings
- 3) As the sleeve wears, backlash will gradually increase

### Model F Flange Type

Rather than a sleeve holding the two halves of the geared coupling together, the Flange Type coupling is bolted together for optimal shaft stability. With the same pros and cons as the Model S Sleeve Type (except for those referring to the sleeve itself), the Model F is the most expensive but also the most durable of the three types. Model F can be sealed to aid in preventing grease washout.



## Q & A

**Q - Why can't I use a NEMA C face motor mount adaptor on jacks under 2 tons?**

A -- The short answer is that the casing of jacks under 2 tons were simply not designed to support the weight of an adaptor and motor. They also do not provide enough surface area for the mounting of a motor adaptor.

Jacks 2 tons and up are designed with a removable plate on the casing that can be replaced with a motor adaptor and motor. The casings of jacks under 2 tons are one casting -- they do not come with a removable plate.

NOTE: When ordering 2 ton and 50 ton jacks that accept motor mounts, a reverse base should be used to prevent the mount from coming into contact with the adaptor.

**Q -- In your last newsletter, the cover story was about the line of bellows that you carry. What materials do your bellows come in? Is there a minimum quantity order for custom bellows?**

A - Please find below a chart outlining the various materials that our bellows can be ordered in. **We have no minimum quantity requirements on custom bellows orders - if you only need one**

<b>Bellows Materials</b>				
Material	Thickness	Temperature	Resistance	Colours
Hypalon Coated Nylon	.56 mm	-60 to 250°F	Resistance to ozone, vegetable / animal oils, acids, weather and abrasion	Green, blue or black
Neoprene Coated Nylon	.45 mm	-60 to 250°F	Heavy duty resistance to vegetable/animal oils, weather and abrasion	Black
Neoprene Coated Nylon	.84 mm	-60 to 250°F	Heavy duty resistance to vegetable/animal oils, weather and abrasion	Black
Aluminum Coated Fiberglass	.82 mm	-100 to 550°F	Heavy weld spatter, flame resistance	Silver
Teflon Coated Fiberglass	.25mm	-100 to 100°F	Good chemical inertness. Only a few fluids will attack teflon	Brown
Silicon Coated Fiberglass	.56mm	-100 to 550°F	Resistance to weather and aging. Attacked by many solvents.	Orange
Neoprene Coated Fiberglass	.45mm	-58 to 266°F		Salmon
Vinyl Reinforced Laminate	.64mm	Flame resistance	Excellent resistance to weather and mildew	Yellow



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