

SERVICE FACTOR

SERVICE FACTOR CALCULATION: To calculate the appropriate service factor to use in your coupling selection, both the driver and the driven device have to be known. From this information, determine the **Application Service Factor** from the chart on the following pages and the **Driver Service Factor Adder** in the chart below.

To obtain the Service Factor, the Driver Service Factor adder has to be added (± 1) to the Application Service Factor.

Ex.: To calculate the Service Factor for a 4FLEX used on a Gyrotory Crusher driven by a High Torque AC Motor, the application service factor is 2.00 and the driver service factor adder is 0.50. So, the service factor will be $2.00 + 0.50 = 2.50$.

(± 1) Either add positive values or subtract negative values.




DRIVER SERVICE FACTOR ADDERS

	MASKA STARFLEX	4-FLEX	MASKAFLEX
Electric Motor w / Standard Torque	0	0	0
Electric Motor w / High Torque SF<1.25	0.25	0.25	0
Electric Motor w / High Torque SF > 1.25	0.25	0.5	0
Steam Turbines SF<1.5	0	-0.25	0
Steam Turbines SF >1.5	0	-0.5	0
Reciprocating Engines***	1- cyl	0.7	*
	2-3 cyl	0.3	*
	4-5-cyl SF < 1.25	0	0.25
	4-5-cyl SF > 1.25	0	0.5
	6-11 cyl SF < 1.25	0	0.25
	6-11 cyl SF > 1.25	0	0.5
	12 or more cyl SF < 1.25	0	0.25
	12 or more cyl SF > 1.25	0	0.5




***The service factors shown are for reference only. Reciprocating applications may apply substantial loads on the coupling and/or induce vibration. This could seriously damage the system. Consult MASKA for assistance with these drives.

*Contact MASKA for Technical Assistance

SERVICE FACTOR (continued)

APPLICATION SERVICE FACTORS	MASKA STARFLEX 	4-FLEX 	MASKAFLEX 
Agitators	1.00	1.25	1.00
Blowers			
Centrifugal	1.00	1.25	1.00
Lobe	1.25	1.50	1.50
Vane	1.25	1.25	1.00
Brewing & distilling			
Bottling Machinery, Brew Kettles (distilling)	1.25	1.25	1.00
Cookers	1.25	1.25	1.00
Car Dumpers	2.50	2.00	1.50
Car Pullers	1.50	2.00	1.50
Compressors **			
Centrifugal	1.00	1.25	1.00
Screw	1.25	1.25	1.00
Lobe	1.25	1.25	2.00
Reciprocating			
1 cylinder - single acting	*	*	3.50
1 cylinder - double acting	*	*	3.00
2 cylinder- single acting	*	*	3.00
2 cylinder - double acting	*	*	2.50
3 cl, or more - single acting	*	*	2.50
3 cl, or more - double acting	*	*	2.00
Conveyors			
Assembly, Belt, Oven, Screw	1.2	1.25	1.00
Cranes & Hoist			
Main Hoist-Medium Duty	1.50	1.50	1.50
Main Hoist-Heavy Duty	2.00	2.00	2.00
Crushers			
Cane	3.50	2.00	2.00
Gyratory	3.00	2.00	2.50
Dredges			
Cable reels	2.00	1.50	1.50
Cutter Head Drives	2.50	2.00	2.50
Maneuvering and Utility Winch, Pumps	1.50	1.50	1.50
Dynamometer	1.50	1.25	1.00
Fans			
Centrifugal	1.00	1.25	1.00
Cooling Towers	2.00	2.00	2.00
Forced Draft Propeller	1.50	1.50	1.50
Feeders			
Belt	1.00	1.25	-
Screw	1.00	1.50	-
Reciprocating	2.50	2.00	-
Filter, Press-oil	1.50	1.50	-
Generators			
Not Welding	1.00	1.25	1.00
Hoist	1.50	1.50	1.50
Welding	2.00	2.00	2.00
Kilns	1.50	2.00	2.00
Lumber Machinery			
Band Resaw	1.50	1.50	1.50
Barkers, Edger Feeder, LOG HAUL	2.00	2.00	2.00
Planer, Slab Conveyor	2.00	1.50	1.50
Live Roll - Reciprocating	2.00	-	2.00
Sawdust Conveyor	1.25	1.25	1.00

ELASTOMERIC ELEMENT COUPLINGS

APPLICATION SERVICE FACTORS	MASKA STARFLEX 	4-FLEX 	MASKAFLEX 
Machine Tools			
Main Drive	1.50	1.50	1.50
Punch Press-gear Driven, Plate Planer	2.00	1.50	1.50
Metal Forming Machines			
Draw Bench, Carriage & Main Drive	2.00	2.00	2.00
Extruder	2.00	2.00	2.00
Wire Drawing	2.00	2.00	2.00
Mills, Rotary Type			
Ball, Pebble	2.00	2.00	2.50
Tube	2.00	2.00	2.50
Rod	2.00	2.00	2.50
Dryers, Coolers	2.00	1.50	1.50
Tumbling, Tumbling Barrel, Rubber Tumbling	1.50	2.00	1.50
Mixers			
Concrete, continuous	1.75	1.50	1.50
Muller	1.50	1.50	1.50
Oil Industry			
Chiller (oil)	1.50	1.50	1.00
Paper Mills			
Agitator (mixers), Reel, Winder	1.20	1.50	1.00
Barking Drum	2.50	2.00	2.50
Beater, Pulper	2.00	1.50	1.50
Jordans	2.00	2.00	2.00
Calenders	1.50	2.00	2.00
Suction Roll (paper)	1.50	1.50	2.00
Winder	1.20	1.50	1.50
Printing Presses	1.50	1.50	1.50
Barge Haul Puller	2.00	2.00	2.50
Pulverisers			
Hammermill-Light Duty	2.00	1.50	1.50
Hammermill-Heavy Duty	2.00	2.00	2.00
Pug Mill	1.75	1.50	1.50
Pumps			
Centrifugal	1.00	1.25	1.00
Gear	1.25	1.50	1.50
Reciprocating:			
1-Cyl, Single Acting	2.00	*	2.50
1-Cyl, Double Acting	2.00	*	2.00
2-Cyl, Single Acting	2.00	*	2.00
2-Cyl, Double Acting	1.75	*	1.50
3 or more Cyl	1.50	*	1.50
Rubber Machinery			
Banbury Mixers	2.50	2.00	2.50
Calender	2.00	2.00	2.00
Screens			
Air washing, Water	1.00	1.25	1.00
Coal and Sand Rotary	1.50	1.50	1.50
Vibrating	2.50	2.00	2.50
Grizzly	2.00	2.00	2.00
Textile Machinery			
Card Machine	1.75	2.00	1.50
Mangel	1.20	1.25	1.00
Loom, Spinner, Tenter frames	1.50	1.50	1.50
Tumbling Barrels	1.75	2.00	2.00
Windlass	2.00	1.50	1.50
Woodworking Machines	1.00	1.25	1.00

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** Add 0.5 to factor if without flywheel