

# Orange Coupling

- Two-piece design is ideal for applications where small shaft separations.
- No need to remove the hubs during replacement.
- No lubrication or Maintenance.
- Low reactionary load on bearing.
- Absorbs shock loading and torsional vibration.



## ORANGE COUPLING SELECTION

**Calculation:** Design Torque [Nm.] =  $\frac{\text{Power [kW]} \times 9550 \times \text{Service Factor}}{\text{Coupling rotating speed [RPM]}}$

### Driver Classification.

Electric Motors (Standard duty), Hydraulic Motors, Turbines	A
Gasoline or Steam Engines (4 or more cylinders)	B
Diesel or Gas Engines, High Torque Electric Motors	C

Applications	Service Factor			Characteristic
	A	B	C	
Uniform load	1.0	1.5	2.0	Even loads - no shock - non reversing - infrequent starts (up to 10 per hour) - low starting torque.
Moderate shock	1.5	2.0	2.5	Uneven loads - moderate shock - Infrequent reversing.
Heavy shock	2.0	2.5	3.0	Uneven loads - heavy shock - frequent starts and stops - high starting torques - high inertia peak loads.

Uniform load: Agitators (pure liquids), Centrifugal pump/blower/fan, Hydraulic pumps, Light Generators, Belt/Screw/Chain conveyors.

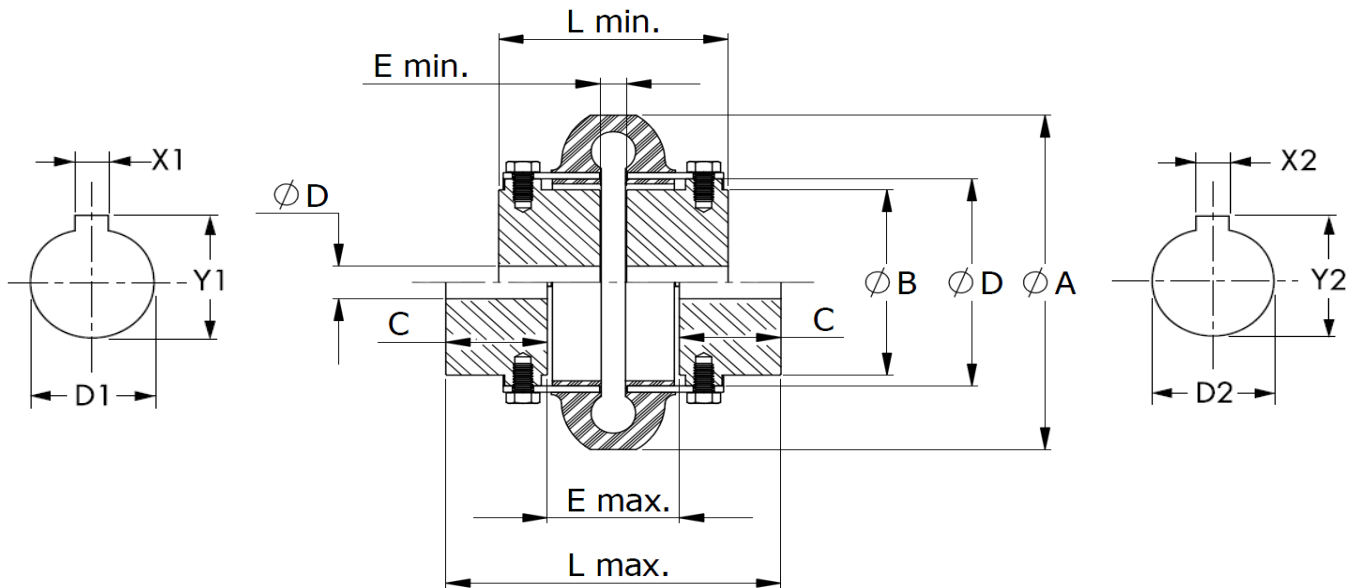
Moderate shock: Beaters, Lobe/Vane Blowers, Centrifugal/Screw/Lobe compressors, Paper Mills, Gear/Rotary/Dredge/Propeller Pumps, Shredder, Textile Machinery (dryers), Force Draft fans, Wood working machines.

Heavy shock: Cranes&Hoist, Cooling tower fans, Welder generators, Wire drawing Machines. Ball/Pebble/Rod/Tube Rubber/Tumbling Mills, Pumps (oil well), Hammer Mills.

# Orange Coupling

## Material

Hubs:	Cast Iron.
Flexible Element:	High-Performance polyurethane elastomer to withstand cyclic fatigue, hot and humid condition.
Steel Shoes:	Steel Shoes are coated-finished to resists corrosion.
Temperature range:	-45 °C to +120 °C



## Dimensions: Millimeters

Size	Rated Torque (Nm.)	Max. Speed	Min. bore D1, D2	Max. bore D1, D2	A	L min.	L max.	E min.	E max.	C	B	D	Inertia kg-m <sup>2</sup>	mass (kg.)
2	22	7,500	13	28	89	84	94	36	46	24	38	47	0.0003	0.5
3	41	7,500	13	34	102	84	122	8	46	38	50	59	0.0007	1.0
4	62	7,500	13	42	116	84	122	8	46	38	57	66	0.0012	1.3
5	105	7,500	13	48	137	97	147	8	59	44	70	80	0.0032	2.3
10	164	7,500	13	55	162	97	147	8	59	44	84	93	0.0064	3.4
20	260	6,600	19	60	184	113	165	13	65	50	102	114	0.016	6.8
30	412	5,800	19	75	210	125	182	12	69	58	118	138	0.034	10
40	622	5,000	19	85	241	135	202	8	75	63	146	168	0.080	17
50	864	4,200	26	90	279	151	230	11	91	70	152	207	0.158	24
60	1,412	3,800	26	105	318	173	262	8	97	82	165	222	0.266	34
70	2,490	3,600	32	120	356	189	281	18	109	85	175	235	0.366	39
80	4,460	2,000	32	155	406	245	377	17	149	114	240	286	1.054	77
100	9,600	1,900	42	171	533	324	375	44	95	140	267	359	2.190	95
120	19,200	1,800	48	190	635	362	429	57	124	152	305	448	2.930	163
140	38,400	1,500	48	229	762	432	483	76	127	178	381	530	4.000	280

- Note:
- 1) Typically factors such as environment, loading, misalignment, balance&types of connected equipment influence very high speed (RPM) limits. Please contact Virtus Engineering for assistance.
  - 2) Hubs are standard without boring. For bore, keyway and set screw on hub, please contact VIRTUS Customer service.