



SBPT PIN AND BUSH COUPLING TYPE - BP



SBPT make BP Pin and Bush Coupling compact in design and construction, consist of a pair of cast iron hubs transmitting the torque through high tensile steel bolts (Pins) and reinforced rubber bushes which have excellent capacity to absorb shocks, torsional vibration and misalignment.

BP Pin and Bush coupling permits drive in either direction, eliminates need of lubrication and no adjustment is required after fitting.

The standard BP Pin and Bush couplings can cater for a power transmission range of 0.65 HP (0.50 kw) to 2100 HP (1570 kw) at 100 rpm.

SELECTION

- a) Check your application against the Service Factor Chart and Select Service Factor
- b) Use the Following formula to obtain HP per 100 RPM and torque of your application

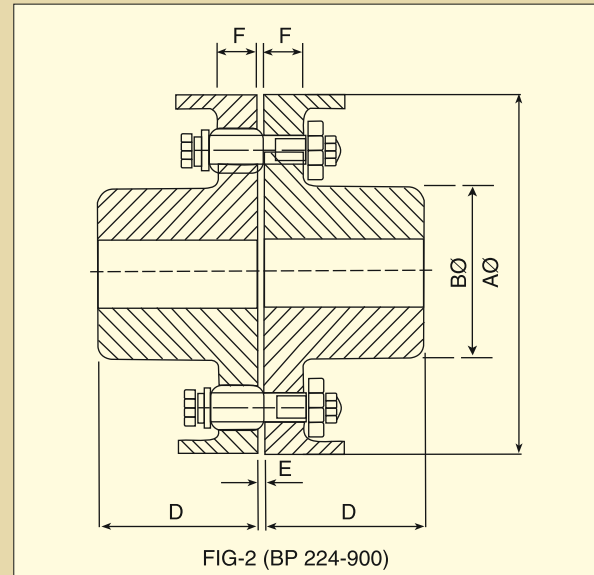
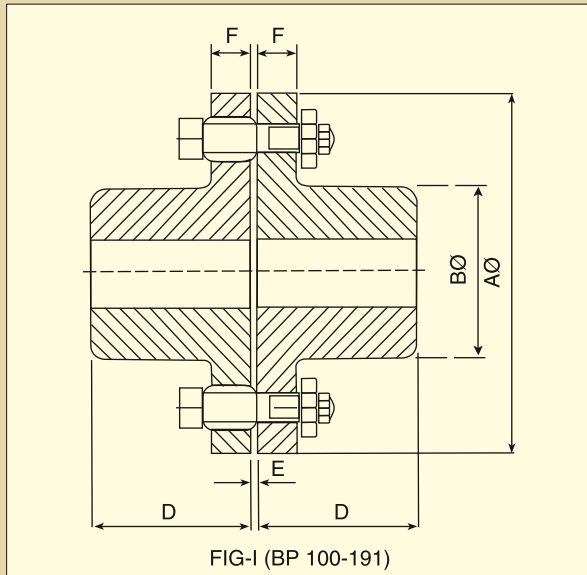
$$\text{HP} \times \text{Service Factor} / \text{RPM} = \text{HP} / \text{RPM}$$

$$\text{Torque in kpm.} = \text{HP} \times \text{Service Factor} \times 716.2 / \text{RPM}$$
- c) Select Coupling size and check hub bore
- d) Check allowable speed

SERVICE FACTOR

LOAD	DUTY DRIVEN EQUIPMENT	TYPE OF PRIME MOVER		
		Motor / turbine	Hydraulic	Reciprocating Engine
Uniform	Centrifugal Pump, Conveyor, Fans and Blower – light duty, Uniform load Generator, Exciters, Mixers-liquid etc.	1.0	1.25	1.50
Light Shock	Centrifugal Pump / Generators – pulsating load, Kilns Grinder, Hydraulic pumps, Textile machineries, machine tools etc.	1.50	1.75	2.0
Medium Shock	Reciprocating Air Compressor – multi cylinder, Ball Mills, Cranes, Elevators, Hoists, Punch press, Welding Generator, REC Pump	2.0	2.50	2.75
Heavy Shock	Air Compressor-single cylinder, Dredges, Drilling Rigs, Mine machinery, Rolling Mills, Rubber Mixers etc.	2.5	2.75	3.0
Extreme Shock	Crushers, Vibrating Conveyor, Bar stock shear etc.	3.0	3.5	4.0

TECHNICAL DETAIL

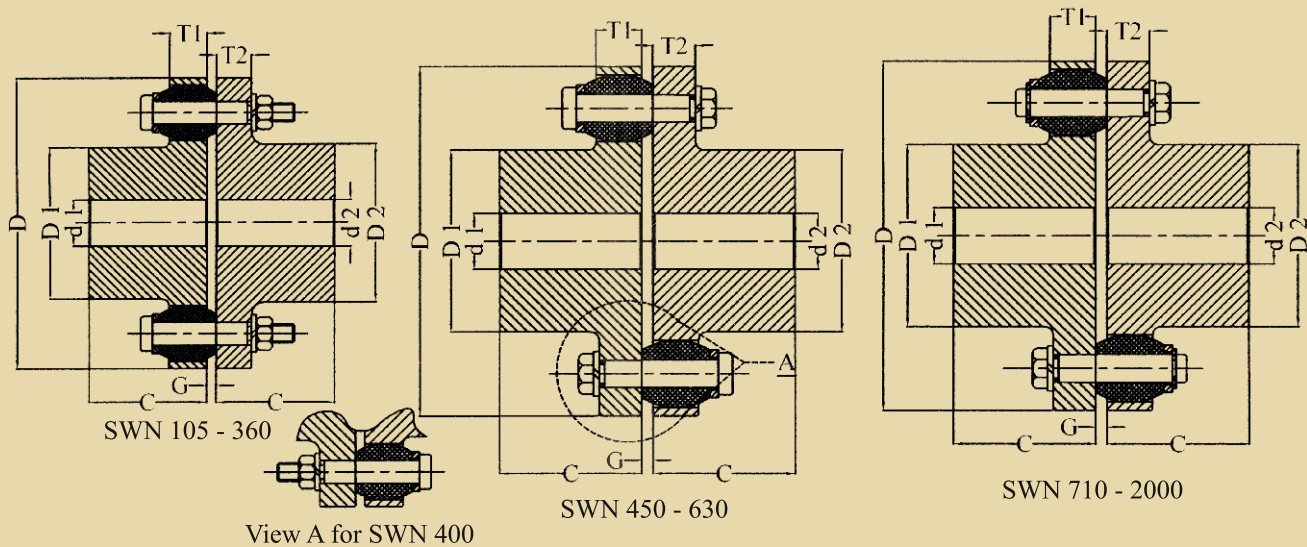


Size BP	Coupling Rating Hp / rpm	Coupling Rating kpm	Max. R.P.M.	Bore Min. mm.	Bore Max mm.	ØA mm	No. of Pins	ØB mm	D mm	E mm	F mm	Wt in kg	M.I. in kgm ²
100	0.0065	4.65	6000	10	30	100	4	45	35	3	16	2.5	0.003
112	0.022	15.75	5500	10	36	112	8	56	46	3	25	4	0.005
131	0.034	24.35	4500	10	40	131	8	62	50	3	25	5.5	0.009
140	0.055	39.40	4300	10	46	140	8	70	50	3	25	6.3	0.012
160	0.070	50.10	3800	20	56	160	8	84	60	3	30	9.6	0.026
191	0.125	89.50	3200	20	75	191	10	106	76	3	30	14.3	0.056
228	0.200	143.2	2950	40	85	228	10	128	90	3	36	26	0.140
250	0.425	304.4	2650	50	95	250	10	138	90	3	40	33	0.221
300	0.450	322.3	2200	50	115	300	10	172	120	3	45	57.5	0.537
339	0.672	481.3	1950	60	130	339	10	190	139	3	55	86.5	1.048
380	1.000	716.2	1750	70	145	380	10	220	158	3	55	117	1.714
410	1.310	938.2	1700	70	160	410	10	245	160	3	60	174	3.150
440	1.500	1074.3	1650	80	170	440	8	255	170	4	70	183.3	3.739
500	2.205	1579.2	1400	90	200	500	10	302	200	4	70	260	6.778
560	3.450	2470.9	1200	90	215	560	10	320	220	4	85	370	12.121
630	6.032	4320.1	1100	90	240	630	10	360	240	5	95	515	21.287
710	6.960	4984.7	1000	125	280	710	12	422	280	5	100	730	38.190
750	7.500	5371.5	925	125	290	750	12	440	290	5	102	836	48.095
800	13.750	9847.8	875	150	320	800	14	480	300	5	104	935	63.412
900	21.050	15076	800	175	350	900	16	530	310	5	124	1330	115.056

NOTE : 1) Weight & mass moment of inertia apply to max. bore diameters.

2) The Weight & M.I. can be reduced for lower shaft dia. Customer to provide shaft diameters.

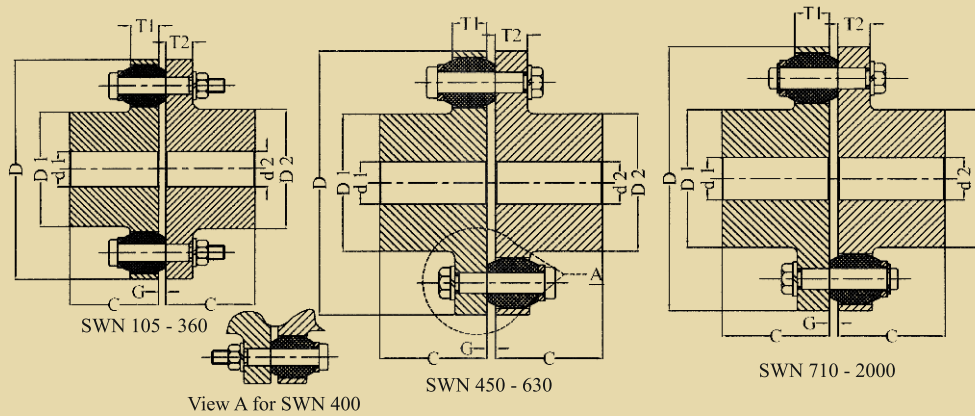
SBPT PIN & BUSH COUPLING, TYPE :- SWN-HUB MATERIAL GREY CAST IRON



Size SWN	Rated Torque Nm	Speed RPM	Pilot Bore		Max Bore		D mm	D1 mm	D2 mm	C mm	G mm	T1 mm	T2 mm	Weight in kg	M.I. kgm ²	No. of Pins
			d1 mm	d2 mm	d1 mm	d2 mm										
105	200	7000	10	10	32	38	105	53	59	45	2-4	13	12	2.5	0.003	8
125	350	6000	10	10	40	48	125	65	68	50	2-4	16	15	5.1	0.007	8
144	500	5250	10	10	45	55	144	76	84	55	2-4	16	15	6.6	0.015	10
162	750	4650	20	20	50	60	162	85	92	60	2-5	20	18	7.7	0.023	9
178	950	4200	20	20	60	70	178	102	108	70	2-5	20	18	11	0.040	10
198	1300	3750	20	20	70	80	198	120	128	80	2-5	20	18	15.4	0.062	12
228	2200	3300	20	20	80	90	228	129	140	90	2-5	26	24	20	0.115	11
252	2750	3000	30	30	90	100	252	150	160	100	2-5	26	24	26.6	0.192	12
285	4300	2650	40	40	100	110	285	164	175	110	3-6	32	30	41	0.368	11
320	5500	2350	50	50	110	120	320	180	192	125	3-6	32	30	55	0.550	12
360	7800	2100	60	60	120	130	360	200	210	140	3-6	42	42	101	1.439	10
400	12500	2050	70	70	140	140	400	230	230	160	3-6	42	42	147	2.436	14
450	18500	1800	80	80	160	160	450	260	260	180	4-7	52	52	163	3.552	12
500	25000	1600	90	90	180	180	500	290	290	200	4-7	52	52	213.2	5.964	14
560	39000	1450	100	100	200	200	560	320	320	220	4-8	68	68	311	10.754	12
630	52000	1280	100	100	220	220	630	355	355	240	4-8	68	68	487.4	20.471	14
710	84000	1150	110	110	240	240	710	385	385	260	5-9	80	80	568	31.555	14
800	110000	1000	125	125	260	260	800	420	420	290	5-9	80	80	772.2	51.833	16
900	150000	900	140	140	290	290	900	465	465	320	5-10	90	90	1048	87.520	16
1000	195000	810	150	150	320	320	1000	515	515	350	5-10	90	90	1382	143.475	18
1120	270000	700	160	160	350	350	1120	560	560	380	6-11	100	100	1969	256.319	18
1250	345000	650	180	180	380	380	1250	610	610	420	6-11	100	100	2404	390.099	20
1400	530000	570	200	200	440	440	1400	700	700	480	6-12	120	120	3511	710.816	20
1600	750000	500	260	260	480	480	1600	770	770	540	6-12	120	120	4795	1229.487	24
1800	975000	450	320	320	540	540	1800	870	870	600	8-16	140	140	6993	2349.648	22
2000	1300000	400	380	380	600	600	2000	960	960	660	8-16	140	140	8992	3658.163	26

NOTE : 1) Weight & mass moment of inertia apply to max. bore diameters.
 2) The Weight & M.I. can be reduced for lower shaft dia. Customer to provide shaft diameters.

SBPT PIN & BUSH COUPLING, TYPE :- SWS-HUB MATERIAL CAST STEEL / STEEL



Size SWN	Rated Torque Nm	Speed RPM	Pilot Bore		Max Bore		D mm	D1 mm	D2 mm	C mm	G mm	T1 mm	T2 mm	Weight in kg	M.I. kgm ²	No. of Pins
			d1 mm	d2 mm	d1 mm	d2 mm										
105	200	10000	10	10	32	38	105	53	59	45	2-4	13	12	2.6	0.002	8
125	350	9000	10	10	40	48	125	65	68	50	2-4	16	15	5.3	0.007	8
144	500	7800	10	10	50	60	144	76	84	55	2-4	16	15	6.9	0.016	10
162	750	6900	20	20	55	65	162	85	92	60	2-5	20	18	8.1	0.024	9
178	950	6300	20	20	70	75	178	102	108	70	2-5	20	18	11.5	0.042	10
198	1300	5600	20	20	80	85	198	120	128	80	2-5	20	18	16.1	0.064	12
228	2200	4900	20	20	85	95	228	129	140	90	2-5	26	24	21	0.121	11
252	2750	4400	30	30	100	110	252	150	160	100	2-5	26	24	28	0.202	12
285	4300	3900	40	40	110	120	285	164	175	110	3-6	32	30	43	0.386	11
320	5500	3500	50	50	125	130	320	180	192	125	3-6	32	30	58	0.580	12
360	7800	3100	60	60	135	140	360	200	210	140	3-6	42	42	106	1.508	10
400	12500	2800	70	70	150	150	400	230	230	160	3-6	42	42	154	2.552	14
450	18500	2500	80	80	170	170	450	260	260	180	4-7	52	52	171	3.72	12
500	25000	2200	90	90	190	190	500	290	290	200	4-7	52	52	223	6.244	14
560	39000	2000	100	100	210	210	560	320	320	220	4-8	68	68	326	11.272	12
630	52000	1800	100	100	235	235	630	355	355	240	4-8	68	68	510	21.420	14
710	84000	1600	110	110	250	250	710	385	385	260	5-9	80	80	595	33.055	14
800	110000	1400	125	125	280	280	800	420	420	290	5-9	80	80	809	54.303	16
900	150000	1250	140	140	280	280	900	465	465	320	5-10	90	90	1097	91.595	16
1000	195000	1100	150	150	340	340	1000	515	515	350	5-10	90	90	1447	150.222	18
1120	270000	1000	160	160	370	370	1120	560	560	380	6-11	100	100	2061	268.296	18
1250	345000	900	180	180	400	400	1250	610	610	420	6-11	100	100	2517	398.620	20
1400	530000	800	200	200	460	460	1400	700	700	480	6-12	120	120	3675	744.019	20
1600	750000	700	260	260	510	510	1600	770	770	540	6-12	120	120	5019	1286.923	24
1800	975000	600	320	320	580	580	1800	870	870	600	8-16	140	140	7319	2459.184	22
2000	1300000	550	380	380	640	640	2000	960	960	660	8-16	140	140	9412	3829.029	26

NOTE : 1) Weight & mass moment of inertia apply to max. bore diameters.

2) The Weight & M.I. can be reduced for lower shaft dia. Customer to provide shaft diameters.

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