

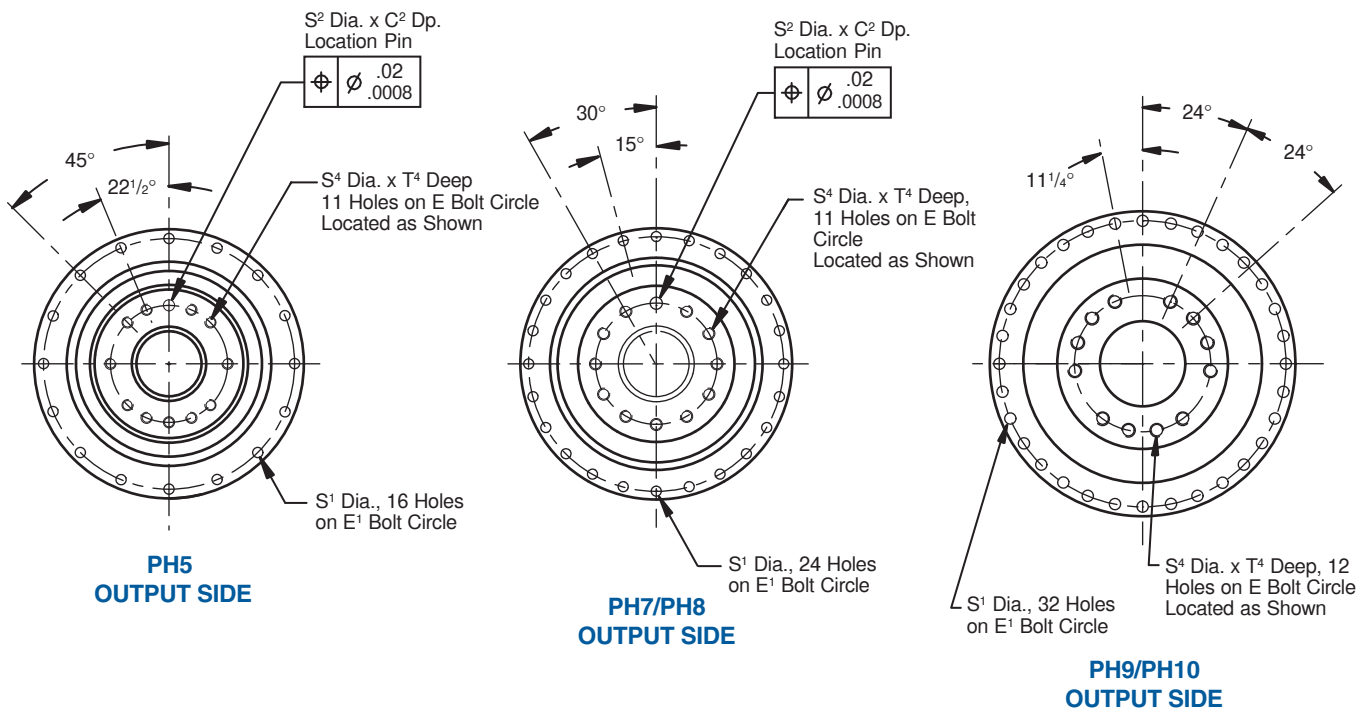
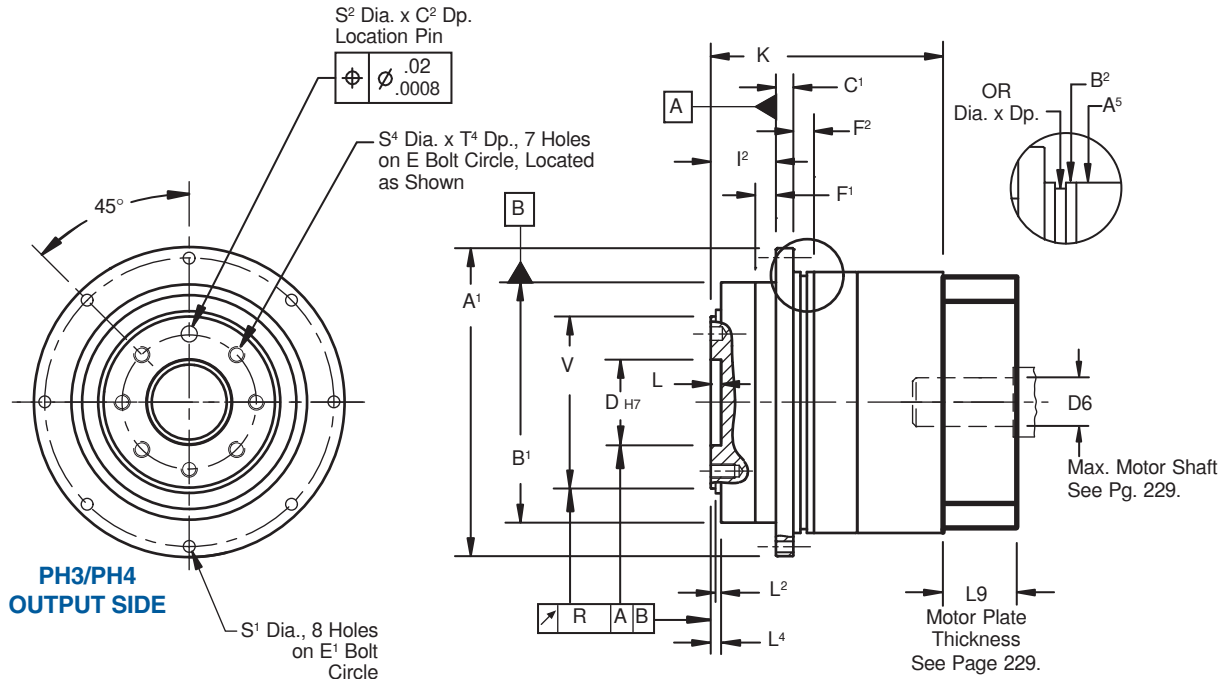


# "PH" Series ServoFit® Precision Planetary Gearhead Dimensional Data



Drawing for Units  
PH321 thru PH1033

P  
H





# "PH" Series ServoFit® Precision Planetary Gearhead Dimensional Data



Table No. 1 "PH" Series – Gearhead with Motor Plate – Dimensions (mm/inches)

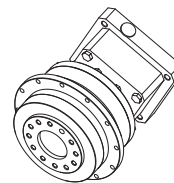
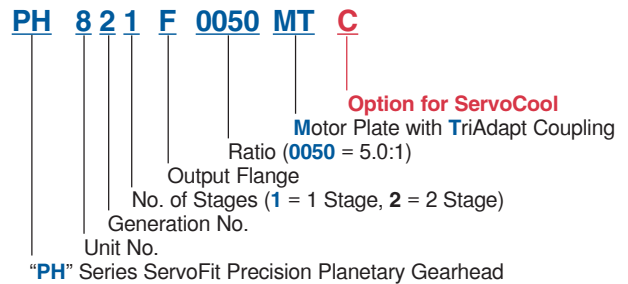
Unit	A <sup>1</sup> h7	B <sup>1</sup> h7	B <sup>2</sup> h7	C <sup>1</sup>	C <sup>2</sup>	D h7	E	E <sup>1</sup>	F <sup>1</sup>	F <sup>2</sup>	I <sup>2</sup>	L	L <sup>2</sup>	L <sup>4</sup>	OR
<b>PH321/PH322</b>	86 +.000/-0.035 3.386 +.0000/-0.0014	64 +.000/-0.030 2.520 +.0000/-0.0012	70 * +.000/-0.030 2.756 +.0000/-0.0012	4 .16	3 .12	20 +.021/-0 .787 +.0008/-0.0000	31.5 1.24	79 3.11	7 .28	8 .31	19.5 .77	4 .16	3 .12	3.5 .14	65x2 2.55x.08
<b>PH421/PH422</b>	118 +.000/-0.035 4.646 +.0000/-0.0014	90 +.000/-0.035 3.543 +.0000/-0.0014	95 +.000/-0.035 3.740 +.0000/-0.0014	7 .28	7 .28	31.5 +.025/-0 1.240 +.0010/-0.0000	50 1.97	109 4.29	10 .39	10 .39	30 1.18	6 .24	6 .24	6 .24	90x3 3.54x.12
<b>PH521/PH522</b>	145 +.000/-0.040 5.709 +.0000/-0.0016	110 +.000/-0.035 4.331 +.0000/-0.0014	120 * +.000/-0.035 4.724 +.0000/-0.0014	8 .32	7 .28	40 +.025/-0 1.575 +.0010/-0.0000	63 2.48	135 5.31	10 .39	12 .47	29 1.14	6 .24	6 .24	6 .24	110x3 4.33x.12
<b>PH721/PH722</b>	179 +.000/-0.040 7.047 +.0000/-0.0016	140 +.000/-0.040 5.513 +.0000/-0.0016	152 +.000/-0.040 5.984 +.0000/-0.0016	10 .39	7 .28	50 +.025/-0 1.969 +.0010/-0.0000	80 3.15	168 6.61	12 .47	12 .47	38 1.50	6 .24	6 .24	6 .24	145x3 5.71x.12
<b>PH821/PH822</b>	247 +.000/-0.046 9.724 +.0000/-0.0018	200 +.000/-0.046 7.874 +.0000/-0.0018	212 +.000/-0.046 8.346 +.0000/-0.0018	12 .47	10 .39	80 +.030/-0 3.150 +.0012/-0.0000	125 4.92	233 9.17	15 .59	15 .59	50 1.97	8 .31	8 .31	8 .31	200x5 7.87x.20
<b>PH932/PHV933</b>	300 — 11.811	255 +.000/-0.052 10.039 +.000/-0.0020	255 +.000/-0.052 10.039 +.0000/-0.0020	18 .71	—	90 +.035/-0 3.543 +.0014/-0.0000	140 5.51	280 11.02	20 .79	33 1.29	66 2.60	12 .47	11 .43	12 .47	238x5 9.37x.20
<b>PH1032/PHV1033</b>	330 — 12.992	285 +.000/-0.057 11.220 +.000/-0.0022	285 +.000/-0.052 11.221 +.0000/-0.0020	20 .79	—	95 +.035/-0 3.740 +.0014/-0.0000	160 6.30	310 12.20	20 .79	20 .79	75 2.95	10 .39	15 .59	15 .59	270x6 10.63x.24

\* Not applicable for PH322 and PH522.

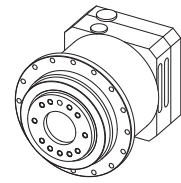
Table No. 2 "PH" Series – Dimensions (mm/inches)

Unit	R	S <sup>1</sup>	S <sup>2</sup> h7	S <sup>4</sup>	T <sup>4</sup>	V h7
<b>PH321/PH322</b>	.020 .0008	4.5 .18	5 +.012/-0.000 .20 +.0005/-0.0000	M5	7 .28	40 +.000/-0.025 1.575 +.000/-0.0010
<b>PH421/PH422</b>	.020 .0008	5.5 .22	6 +.012/-0.000 .236 +.0005/-0.0000	M6	11 .43	63 +.000/-0.030 2.480 +.000/-0.0012
<b>PH521/PH522</b>	.020 .0008	5.5 .22	6 +.012/-0.000 .236 +.0005/-0.0000	M6	11 .43	80 +.000/-0.030 3.150 +.000/-0.0012
<b>PH721/PH722</b>	.025 .0010	6.6 .26	8 +.015/-0.000 .315 +.0006/-0.0000	M8	14 .55	100 +.000/-0.035 3.937 +.000/-0.0014
<b>PH821/PH822</b>	.030 .0012	9 .35	10 +.015/-0.000 .393 +.0006/-0.0000	M10	18 .71	160 +.000/-0.040 6.299 +.000/-0.0016
<b>PH932/PHV933</b>	.030 .0012	13.5 .53	—	M16	24 .94	180 +.000/-0.040 7.087 +.000/-0.0016
<b>PH1032/PHV1033</b>	.040 .0016	13.5 .53	—	M20	30 1.18	200 +.000/-0.046 7.874 +.000/-0.0018

## Part No. Explanation



Typical 2 Stage Configuration



Typical ServoCool

Table No. 3 "PH" Series – Dimensions (mm/inches)

Unit	A <sup>5</sup>		K — Standard		Unit	A <sup>5</sup>		K — ServoCool	
	mm	inches	mm	inches		mm	inches	mm	inches
<b>PH321</b>	70	2.76	80.5	3.17	—	—	—	—	—
<b>PH322</b>	55	2.17	104	4.09	—	—	—	—	—
<b>PH421</b>	95	3.74	99	3.90	<b>PH421_C</b>	98	3.86	122.5	4.82
<b>PH422</b>	72	2.83	146.5	5.77	—	—	—	—	—
<b>PH521</b>	120	4.72	110	4.33	<b>PH521_C</b>	115	4.53	138	5.43
<b>PH522</b>	98	3.86	159.5	6.28	<b>PH522_C</b>	98	3.86	183	7.20
<b>PH721</b>	152	5.98	138	5.43	<b>PH721_C</b>	145	5.71	168	6.61
<b>PH722</b>	115	4.53	190	7.48	<b>PH722_C</b>	115	4.53	218	8.58
<b>PH821</b>	212	8.35	183	7.20	<b>PH821_C</b>	190	7.48	231	9.09
<b>PH822</b>	145	5.71	251	9.88	<b>PH822_C</b>	145	5.71	281	11.06
<b>PH932</b>	190	7.48	349.5	13.74	<b>PH932_C</b>	190	7.48	397.5	15.64
<b>PHV933</b>	152	5.98	269.5	10.61	<b>PHV933_C</b>	145	5.71	299.5	11.79
<b>PH1032</b>	190	7.48	366	14.41	<b>PH1032_C</b>	190	7.48	414	16.30
<b>PHV1033</b>	212	8.35	307	12.09	<b>PHV1033_C</b>	190	7.48	355	13.98

If a planetary gearhead is to be mounted from "B2" side, specify when ordering. For proper mounting the paint must be eliminated and the tolerance held on that surface.



Side "B2" mounting is not possible with the Large Input.

When ordering a planetary gearhead, specify the motor manufacturer and part number, provide the motor drawing with dimensions, or specify the motor mounting dimensions. (See Page 229.)