Section 9:

Gearboxes: Series C

Modern design techniques enable the Fenner® Series C Helical Worm gear unit to out perform any other gearbox in terms of lowest cost /Nm.




- Drives up to 45kW
- Energy efficient right angled drive
- Versatile mounting
- Ratios from 8:1 to 13,500:1 off the shelf
- Dimensionally interchangeable with the market leaders
- Accepts standard IEC motors without modification
- ATEX certification available

Geared Drives: Design Data Required	
Motorised (integral motor) or non-motorised?	> If motorised: electrical supply available any special motor features required (brake, thermistors, flameproof etc.) > type of prime mover rotational speed of prime mover power rating of prime mover is an input shaft coupling required? if so, prime mover shaft dia.
Foot, flange or shaft mounted?	> If shaft mounted, machine shaft diameter/length > if foot mounted, is an output shaft coupling required?
Type of driven machine	
Rotational speed of driven machine	> constant or variable over what range?
Power absorbed by driven machine (or required output torque)	
Hours/day duty & start/stop frequency	

Visit www.fptgroup.com

SERIES C

Highly Efficient, Versatile Compact Solutions

- > Energy efficient right angled drive
- > Dimesionally interchangeable with market leaders
- > Versatile mounting
- > Oil tight gearhead enables motor removal without modification
- > Accepts standard IEC motors without oil spillage
- > Ratios from 8:1 to 13,500:1

Fenner®

THE MARK OF ENGINEERING EXCELLENCE

www.fptgroup.com

Series C Gearboxes : Motorised selection

(a) Absorbed Power
Calculate absorbed power (kW) to drive designated machine P.

(b) Absorbed Torque
Determine the absorbed torque and speed required by the driven machine. If the required output torque is not known it can be calculated using the following formula:

$$M = \frac{P_2 \times 9550}{n_2}$$

M = required output torque (Nm)
P_2 = absorbed power (kW)
n_2 = machine speed (rev/min)

(c) Service Factor
From Table 1 select the Mechanical Service Factor (Fm) applicable to the drive.
If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor Fm by Factor Fs from table 2.

(d) Motor Power
Refer to the selection tables and choose closest motor power above the required absorbed power then find the nearest available output speed to that required. Ensure it has sufficient output torque, if not, move to next motor size.

(e) Unit Selection
At the selected output speed read downwards to the first unit with an output torque in excess of the absorbed torque from step (b). Read across to column 3 and check if the service factor exceeds the value from step (c).
If maximum service factor equals or exceeds the value from step (c) read across to unit selection column, this gives the relevant product code. If the value from step (c) exceeds the service factor read down to the first service factor to equal or exceed the value from step (c) and read across to the unit selection column.

(f) Overhung Loads
If the unit is to be fitted with an output shaft and an indirect drive attached to the shaft, calculate the overhung load value using the formula on page 234 and compare this value with the maximum allowable value given in column 5 of the selection tables. If the value exceeds the maximum allowed, then either re-design the indirect drive or select a larger unit capable of supporting the overhung load.

(g) Shaft Mounted
From the relevant dimension pages determine the required machine shaft diameter. There are several bore options on most of the range.

NOTE:
(i) The output speeds in the selection table assume nominal motor speeds. In order to determine the exact output speeds of the unit refer to the motor details on page 314.
(ii) For exact ratios of series C units refer to page 234.

TABLE 1 - MECHANICAL SERVICE FACTOR (Fm)

Types of Driven Machine	Operational Hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	175	2.00

TABLE 2 - STARTING FACTOR (Fs)

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

For ATEX certified gear units please consult your local Authorised Distributor.

EXAMPLE
A Series C motorised shaft mounted gear unit is required for a uniformly loaded conveyor which absorbs 5.7 kW at 46 rpm when running for up to 16 hours/day during which it stops and starts 8 times.

(a) Absorbed power is 5.7kW

(b) Torque = $\frac{5.7 \times 9550}{46} = 1183$ Nm

(c) From table 1 service factor is 1.25.
The machine stops and starts only 8 times a day therefore an additional stop/start factor is not required.

(d) Closest motor power above 5.7kW is 7.5kW and the nearest available speed is 46 rev/min.

(e) First unit with output torque in excess of 1183 Nm is capable of 1424 Nm and has a maximum service factor of 1.37. Service factor exceeds 1.25 from step (c) therefore read across to unit selection column for product code, 875A1156.

(f) From column 5 the overhung load capacity is 37565 N. If an indirect drive is fitted calculate the load using the formula on page 234 and compare it with this value.

(g) Shaft diameter needs to be 70 mm.
So the standard bore option can be used.

Series C Gearboxes : Motorised selection

Double reduction
Triple reduction
Higher ratios are available on request.

0.18 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
158	8	9.03	870A0102	2858
117	12	7.30	870A0202	2857
103	13	6.67	870A0302	2857
91	15	6.09	870A0402	2857
83	14	5.83	870A0502	2856
71	19	5.11	870A0602	2856
66	20	4.84	870A0702	2856
62	19	4.77	870A0802	2856
54	22	4.36	870A0902	2855
48	25	4.02	870A1002	2855
40	33	3.38	870A1102	2844
37	31	3.39	870A1202	2844
35	34	3.22	870A1302	2844
30	44	2.72	870A1402	2841
26	52	2.44	870A1502	2831
24	47	2.51	870A1602	2841
21	54	2.29	870A1702	2830
18	71	2.00	870A1802	2825
18	72	2.84	871A1802	5284
17	79	1.85	870A1902	2818
17	80	2.39	871A1902	5284
16	71	1.94	870A2002	2825
16	73	3.11	871A2002	5287
13	82	1.73	870A2102	2816
13	84	2.77	871A2102	5285
12	108	1.20	870A2202	2801
12	108	1.20	871A2202	5280
12	107	3.23	872A2202	7438
11	122	1.03	870A2302	2796
11	123	1.03	871A2302	5278
11	121	3.19	872A2302	7438
10	113	1.32	870A2402	2801
10	116	1.32	871A2402	5278
8.7	124	1.20	870A2502	2796
8.7	127	2.02	871A2502	5280
8.6	133	3.61	872A2502	7436
7.2	176	1.13	871A4502	5278
6.8	153	0.97	870A4602	2780
6.8	157	1.75	871A4602	5271
6.5	174	2.76	872A2602	7433
6.3	168	0.88	870A2602	2770
6.3	172	1.20	871A2602	5271
6.0	178	1.55	871A4702	5271
5.7	196	2.45	872A2702	7437
5.7	206	3.71	873A2702	11852
5.5	194	1.03	871A2702	5261
5.2	265	2.89	873A4802	11830
4.7	273	1.42	872A4902	7430
4.5	237	1.17	871A5002	5250
4.5	297	2.57	873A4902	11728
4.4	246	1.95	872A5002	7432
4.2	275	2.78	873A5002	11828
4.0	330	3.84	874A5102	28143
3.8	275	1.00	871A5102	5240
3.7	286	1.67	872A5102	7428
3.7	297	2.57	873A5102	11828
3.7	384	3.49	874A5202	27930
3.4	374	1.02	872A5202	7421
3.4	390	1.96	873A5202	11704
3.3	429	3.12	874A5302	29161
3.0	425	0.90	872A5302	7416
3.0	440	1.74	873A5302	11661
2.7	394	1.21	872A5402	7421
2.7	419	1.83	873A5402	11707
2.7	479	2.65	874A5402	29152
2.4	435	1.10	872A5502	7420
2.4	469	1.63	873A5502	11707
2.4	522	2.43	874A5502	29152
1.8	610	1.25	873A5602	11600
1.8	701	1.80	874A5602	29130
1.6	688	1.11	873A5702	11500
1.6	784	1.61	874A5702	29116

0.25 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
159	12	6.64	870A0106	2856
118	16	5.37	870A0206	2855
104	18	4.90	870A0306	2854
92	21	4.48	870A0406	2854
84	20	4.29	870A0506	2853
72	27	3.76	870A0606	2852
66	28	3.56	870A0706	2852
62	27	3.51	870A0806	2852
54	31	3.21	870A0906	2849
48	34	2.95	870A1006	2849
41	46	2.49	870A1106	2837
38	43	2.49	870A1206	2837
38	44	3.98	871A1206	5286
35	47	2.37	870A1306	2837
35	47	3.78	871A1306	5286
30	62	2.00	870A1406	2831
30	61	3.35	871A1406	5285
26	72	1.79	870A1506	2821
26	71	2.92	871A1506	5281
24	66	1.85	870A1606	2831
24	66	2.96	871A1606	5283
21	75	1.69	870A1706	2818
21	74	2.70	871A1706	5281
19	98	2.09	871A1806	5277
19	99	3.83	872A1806	7437
18	99	1.47	870A1806	2808
17	110	1.36	870A1906	2804
17	109	1.76	871A1906	5277
17	111	3.45	872A1906	7436
16	99	1.43	870A2006	2808
16	99	2.29	871A2006	5284
13	115	1.27	870A2106	2800
13	114	2.04	871A2106	5279
13	137	2.91	872A4006	7433
12	149	0.88	870A2206	2780
12	151	0.98	870A4106	2780
12	147	0.88	871A2206	5269
12	154	1.31	871A4106	5268
12	145	2.70	872A2206	7435
12	156	2.55	872A4106	7430
11	138	1.07	870A4206	2790
11	142	1.68	871A4206	5271
11	164	2.34	872A2306	7436
11	151	3.25	872A4206	7427
11	173	3.05	873A2306	11838
10	151	0.97	870A2406	2780
10	148	1.00	870A4306	2780
10	156	1.61	871A2406	5269
10	162	2.97	872A2406	7436
8.9	169	0.88	870A2506	2770
8.7	172	1.46	871A2506	5264
8.7	181	2.65	872A2506	7431
8.2	234	3.27	873A4406	11817
7.6	253	3.02	873A4506	11796
7.5	243	1.61	872A4506	7427
7.0	222	2.16	872A4606	7430
6.5	252	3.03	873A2606	11817
6.3	233	0.88	871A2606	5250
6.3	235	2.04	872A2606	7425
5.7	265	1.82	872A2706	7434
5.7	280	2.73	873A2706	11796
5.6	354	3.78	874A4806	29152
5.2	335	1.16	872A4806	7424
5.2	360	2.12	873A4806	11748
5.1	386	3.46	874A4906	29143
4.7	372	1.04	872A4906	7419
4.7	404	1.89	873A4906	11644
4.4	335	1.44	872A5006	7424
4.4	374	2.05	873A5006	11744
4.4	422	3.01	874A5006	28013
4.1	449	2.82	874A5106	26909
3.8	390	1.24	872A5106	7214
3.8	404	1.89	873A5106	11744
3.7	522	2.56	874A5206	26449
3.5	530	1.44	873A5206	11592
3.3	584	2.29	874A5306	29117
3.0	599	1.28	873A5306	11500
2.8	535	0.90	872A5406	7400
2.8	651	1.95	874A5406	29096
2.7	569	1.34	873A5406	11600
2.6	710	1.79	874A5506	29096
2.4	637	1.20	873A5506	11600
1.9	953	1.32	874A5606	29048
1.7	1066	1.18	874A5706	29018

0.37 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
161	18	4.49	870A0108	2852
119	24	3.63	870A0208	2850
105	27	3.31	870A0308	2849
92	30	3.03	870A0408	2849
84	30	2.90	870A0508	2847
72	39	2.54	870A0608	2844
67	41	2.41	870A0708	2844
63	39	2.37	870A0808	2844
63	41	3.78	871A0808	5286
56	45	2.17	870A0908	2840
56	46	3.47	871A0908	5284
49	50	2.00	870A1008	2840
49	52	3.21	871A1008	5284
41	67	1.68	870A1108	2826
41	68	2.82	871A1108	5280
38	63	1.68	870A1208	2826
38	65	2.69	871A1208	5282
35	68	1.60	870A1308	2826
35	70	2.55	871A1308	5282
30	90	1.35	870A1408	2815
30	91	2.26	871A1408	5282
26	104	1.21	870A1508	2805
26	105	1.97	871A1508	5274
25	96	1.25	870A1608	2815
25	98	2.00	871A1608	5278
21	108	1.14	870A1708	2799
21	110	1.82	871A1708	5274
19	143	0.99	870A1808	2780
19	145	1.41	871A1808	5266
19	147	2.59	872A1808	7434
17	159	0.92	870A1908	2780
17	161	1.19	871A1908	5266
17	165	2.33	872A1908	7432
17	171	3.55	873A1908	11909
16	143	0.97	870A2008	2780
16	146	1.54	871A2008	5280
16	159	3.00	872A2008	74342
14	169	1.38	871A2108	5270
14	171	2.82	872A2108	7429
13	200	1.02	871A4008	5255
13	215	1.82	872A2208	7432
13	204	1.96	872A4008	7427
13	230	2.74	873A2208	11797
12	228	0.89	871A4108	5249
12	232	1.72	872A4108	7422
11	210	1.14	871A4208	5255
11	243	1.58	872A2308	7434
11	219	2.19	872A4208	7424
11	257	2.06	873A2308	11780
10	232	1.09	871A2408	5250
10	225	1.09	871A4308	5250
10	240	2.00	872A2408	7434
10	235	2.05	872A4308	7422
10	257	2.97	873A2408	11780
8.9	279	2.74	873A2508	11780
8.8	268	1.79	872A2508	7424
8.8	340	3.94	874A4408	29139
8.7	255	1.00	871A2508	5240
8.7	309	1.28	872A4408	7416
8.2	346	2.21	873A4408	11741
8.2	361	3.71	874A4508	29145
7.5	360	1.09	872A4508	7416
7.5	375	2.04	873A4508	11701
7.2	389	3.05	874A4608	29145
7.0	316	0.87	871A4608	5230

Series C Gearboxes : Motorised selection

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
7.0	329	1.46	872A4608	7422
6.5	349	1.38	872A2608	7412
6.5	373	2.05	873A2608	11741
6.2	449	2.71	874A4708	29127
6.1	375	1.29	872A4708	7416
5.8	392	1.23	872A2708	7430
5.8	415	1.84	873A2708	11701
5.6	523	2.56	874A4808	29109
5.2	533	1.44	873A4808	11609
5.1	572	2.34	874A4908	29091
4.7	599	1.28	873A4908	11500
4.5	496	0.97	872A5008	7410
4.4	624	2.03	874A5008	26917
4.3	553	1.38	873A5008	11600
4.1	665	1.91	874A5108	24796
3.9	577	0.84	872A5108	7390
3.9	599	1.28	873A5108	11600
3.7	773	1.73	874A5208	23910
3.5	784	0.98	873A5208	11400
3.3	864	1.55	874A5308	29041
2.8	963	1.32	874A5408	29001
2.6	1051	1.21	874A5508	29001
1.9	1411	0.89	874A5808	28909

0.55 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
164	26	3.06	870A0116	2847
121	35	2.47	870A0216	2844
107	39	2.26	870A0316	2841
107	40	3.76	871A0316	5283
94	45	2.07	870A0416	2841
94	46	3.45	871A0416	5285
86	44	1.98	870A0516	2838
86	45	3.17	871A0516	5283
74	57	1.73	870A0616	2833
74	58	2.88	871A0616	5283
68	61	1.64	870A0716	2833
68	62	2.74	871A0716	5283
64	58	1.62	870A0816	2833
64	60	2.58	871A0816	5283
56	66	1.48	870A0916	2825
56	67	2.37	871A0916	5280
50	74	1.36	870A1016	2825
50	76	2.19	871A1016	5280
42	99	3.44	872A1116	7440
42	98	1.15	870A1116	2809
42	99	1.92	871A1116	5274
40	98	3.85	872A1216	7440
39	93	1.15	870A1216	2809
39	95	1.83	871A1216	5276
36	100	1.09	870A1316	2809
36	102	1.74	871A1316	5276
36	110	3.51	872A1316	7440
31	132	0.92	870A1416	2890
31	133	1.54	871A1416	5276
31	141	2.71	872A1416	7440
27	153	0.83	870A1516	2880
27	155	1.35	871A1516	5262
27	152	2.56	872A1516	7440
25	140	0.85	870A1616	2890
25	143	1.36	871A1616	5269
25	147	2.81	872A1616	7440
21	162	1.24	871A1716	5262
21	165	2.58	872A1716	7440
21	180	3.99	873A1716	11896
19	213	0.97	871A1816	5250
19	215	1.76	872A1816	7431
19	230	3.31	873A1816	11844
19	243	3.85	874A1916	29200
17	236	0.81	871A1916	5250
17	241	1.59	872A1916	7426
17	251	2.42	873A1916	11844
17	271	3.79	874A2016	29200
15	233	2.05	872A2016	7426
15	250	3.06	873A2016	11844
15	303	3.45	874A2116	29200
14	250	1.92	872A2116	7422
14	265	2.88	873A2116	11844
14	330	2.94	874A2216	29200
13	316	1.24	872A2216	7426
13	338	1.87	873A2216	11724
11	357	1.08	872A2316	7430
11	376	1.41	873A2316	11695
11	366	2.64	874A2316	29200
10	352	1.37	872A2416	7430
10	377	2.03	873A2416	11695
10	413	2.71	874A2416	29200
9	394	1.22	872A2516	7412
9	409	1.87	873A2516	11695
9	454	2.51	874A2516	29200
8.3	529	2.53	874A4516	29106
7.3	571	2.08	874A4616	29106
6.7	511	0.94	872A2616	7392
6.7	548	1.40	873A2616	11626
6.7	612	1.96	874A2616	29200
6.3	658	1.85	874A4716	29075
6	609	1.26	873A2716	11558
6	678	1.80	874A2716	29200
6	699	3.61	875A2716	41900
5.5	782	0.98	873A4816	11400
5.5	767	1.74	874A4816	29044
5	838	1.60	874A4916	29013
4.3	915	1.39	874A5016	25273
4	975	1.30	874A5116	21625
3.7	1133	1.18	874A5216	20101
3.3	1266	1.06	874A5316	28926
2.8	1412	0.90	874A5416	28858
2.6	1540	0.82	874A5516	28858

0.75 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
165	36	2.24	870A0118	2841
165	37	3.70	871A0118	5287
119	48	1.81	870A0218	2837
119	49	3.01	871A0218	5283
105	54	1.65	870A0318	2832
105	56	2.75	871A0318	5283
93	62	1.51	870A0418	2832
93	62	2.52	871A0418	5280
85	60	1.44	870A0518	2827
85	62	2.32	871A0518	5280
72	78	1.27	870A0618	2821
72	79	2.11	871A0618	5280
72	79	3.57	872A0618	7440
67	84	1.20	870A0718	2821
67	85	2.00	871A0718	5280
67	89	3.30	872A0718	7439
63	80	1.18	870A0818	2821
63	82	1.89	871A0818	5280
63	87	3.94	872A0818	7439
55	90	1.08	870A0918	2810
55	93	1.73	871A0918	5276
55	95	3.68	872A0918	7439
49	101	1.00	870A1018	2810
49	104	1.60	871A1018	5276
49	107	3.37	872A1018	7438
42	134	0.84	870A1118	2790
42	136	1.41	871A1118	5267
42	135	2.51	872A1118	7437
39	127	0.84	870A1218	2790
39	131	1.34	871A1218	5270
39	134	2.81	872A1218	7437
35	140	1.27	871A1318	5270
35	151	2.56	872A1318	7437
30	182	1.13	871A1418	5270
30	193	1.98	872A1418	7437
30	205	3.38	873A1418	11868
26	212	0.98	871A1518	5250
26	208	1.87	872A1518	7435
26	218	3.24	873A1518	11848
26	222	3.96	874A1518	29187
25	196	1.00	871A1618	5260
25	201	2.06	872A1618	7435
25	215	3.24	873A1618	11878
22	222	0.91	871A1718	5250
22	226	1.89	872A1718	7433
22	247	2.91	873A1718	11848
22	262	3.70	874A1718	29182
19	295	1.29	872A1818	7427
19	314	2.42	873A1818	11771
19	304	3.04	874A1818	29182
19	333	2.81	874A1918	29176
17	330	1.16	872A1918	7420
17	344	1.77	873A1918	11771
15	319	1.50	872A2018	7420
15	342	2.24	873A2018	11771
15	371	2.77	874A2018	29175
14	343	1.41	872A2118	7414
14	363	2.11	873A2118	11771
14	415	2.52	874A2118	29175
13	432	0.91	872A2218	7420
13	409	0.98	872A4018	7407
13	462	1.37	873A2218	11642
13	452	2.15	874A2218	29175
12	465	0.86	872A4118	7395
11	440	1.09	872A4218	7401
11	515	1.03	873A2318	11600
11	516	1.64	873A4218	11690
11	502	1.93	874A2318	29163
10	472	1.02	872A4318	7395
10	516	1.48	873A2418	11600
10	566	1.98	874A2418	29157
10	578	3.99	875A2418	41882
9	539	0.89	872A2518	7400
9	560	1.37	873A2518	11600
9	621	1.83	874A2518	29157
9	633	3.71	875A2518	41883
8	710	1.10	873A4418	11500
8	725	1.85	874A4518	29603
7	749	1.02	873A2618	11500
7	700	1.09	873A4618	11500
7	838	1.43	874A2618	29127
7	836	2.95	875A2618	41867
6	833	0.92	873A2718	11500
6	928	1.31	874A2718	29090
6	957	2.64	875A2718	41875
5	1050	1.28	874A4818	28971
4	1252	1.01	874A5018	23447
3.5	1550	0.86	874A5218	15869

Series C Gearboxes : Motorised selection

Double reduction
Triple reduction

Higher ratios are available on request.

1.1 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
165	53	1.52	870A0124	2831
165	54	2.51	871A0124	5286
165	53	3.88	872A0124	7440
120	71	1.23	870A0224	2824
120	72	2.04	871A0224	5279
120	74	3.20	872A0224	7440
105	80	1.12	870A0324	2817
105	82	1.87	871A0324	5280
105	81	3.02	872A0324	7440
93	91	1.03	870A0424	2817
93	92	1.71	871A0424	5275
93	92	2.80	872A0424	7438
85	88	0.98	870A0524	2810
85	91	1.57	871A0524	5275
85	93	3.41	872A0524	7440
72	115	0.86	870A0624	2800
72	117	1.43	871A0624	5275
72	116	2.42	872A0624	7440
68	123	0.82	870A0724	2800
68	125	1.36	871A0724	5275
68	131	2.25	872A0724	7437
68	137	3.86	873A0724	11944
64	117	0.80	870A0824	2800
64	121	1.28	871A0824	5275
64	128	2.68	872A0824	7437
55	136	1.18	871A0924	5268
55	140	2.50	872A0924	7437
55	149	3.97	873A0924	11944
48	153	1.09	871A1024	5268
48	158	2.29	872A1024	7435
48	167	3.65	873A1024	11936
41	201	0.95	871A1124	5254
41	199	1.71	872A1124	7433
41	216	2.88	873A1124	11820
38	193	0.91	871A1224	5260
38	197	1.91	872A1224	7433
38	208	3.05	873A1224	11836
34	206	0.87	871A1324	5260
34	222	1.74	872A1324	7433
34	235	2.77	873A1324	11832
30	284	1.34	872A1424	7434
30	302	2.30	873A1424	11795
30	290	3.00	874A1424	29166
27	307	1.27	872A1524	7428
27	322	2.20	873A1524	11764
27	327	2.69	874A1524	29166
25	297	1.40	872A1624	7428
25	317	2.20	873A1624	11811
25	338	2.79	874A1624	29168
22	333	1.28	872A1724	7422
22	364	1.98	873A1724	11764
22	386	2.51	874A1724	29152
19	434	0.88	872A1824	7420
19	463	1.64	873A1824	11644
19	448	2.07	874A1824	29152
17	506	1.20	873A1924	11644
17	490	1.91	874A1924	29136
15	470	1.02	872A2024	7410
15	503	1.52	873A2024	11644
15	547	1.88	874A2024	29133
15	546	3.88	875A2024	41877
14	504	0.95	872A2124	7400
14	534	1.43	873A2124	11644
14	612	1.71	874A2124	29133
14	621	2.16	874A4024	29097
14	612	3.53	875A2124	41884
12	680	0.93	873A2224	11500
12	665	1.46	874A2224	29133
12	718	1.87	874A4124	29029
12	756	3.77	875A2324	41868
11	687	1.11	873A4224	11500
11	739	1.31	874A2324	29100
11	749	1.47	874A4224	29087
10	773	0.99	873A4324	11500
10	833	1.34	874A2424	29084
10	851	2.71	875A2424	41852
9	914	1.25	874A2524	29084
9	932	2.52	875A2524	41855
7	1234	0.97	874A2624	29000
7	1230	2.01	875A2624	41810
6	1366	0.89	874A2724	28900
6	1409	1.79	875A2724	41833
6	1485	3.76	876A2724	53800

1.5 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
162	72	1.12	870A0128	2820
162	73	1.85	871A0128	5285
162	72	2.87	872A0128	7440
120	96	0.91	870A0228	2810
120	98	1.51	871A0228	5275
120	100	2.36	872A0228	7440
105	109	0.83	870A0328	2800
105	111	1.38	871A0328	5276
105	110	2.23	872A0328	7440
105	116	3.82	873A0328	11945
93	125	1.27	871A0428	5270
93	125	2.07	872A0428	7437
93	130	3.56	873A0428	11923
86	123	1.16	871A0528	5270
86	126	2.52	872A0528	7440
86	131	3.94	873A0528	11942
74	158	1.06	871A0628	5270
74	157	1.79	872A0628	7440
74	164	3.08	873A0628	11904
67	170	1.01	871A0728	5270
67	177	1.66	872A0728	7436
67	186	2.85	873A0728	11904
63	164	0.95	871A0828	5270
63	174	1.98	872A0828	7436
63	182	3.18	873A0828	11904
56	185	0.87	871A0928	5260
56	190	1.85	872A0928	7436
56	202	2.93	873A0928	11904
49	207	0.80	871A1028	5260
49	214	1.69	872A1028	7432
49	226	2.70	873A1028	11889
43	270	1.26	872A1128	7428
43	292	2.13	873A1128	11762
43	278	2.85	874A1128	28940
39	268	1.41	872A1228	7428
39	282	2.25	873A1228	11789
34	301	1.29	872A1328	7428
34	318	2.04	873A1328	11783
30	384	0.99	872A1428	7430
30	409	1.70	873A1428	11712
30	393	2.21	874A1428	29142
28	415	0.94	872A1528	7420
28	436	1.63	873A1528	11668
28	443	1.98	874A1528	29142
25	402	1.03	872A1628	7420
25	429	1.63	873A1628	11734
25	458	2.06	874A1628	29144
22	451	0.95	872A1728	7410
22	493	1.46	873A1728	11668
22	523	1.85	874A1728	29117
20	627	1.21	873A1828	11500
20	606	1.53	874A1828	29117
18	685	0.89	873A1928	11500
18	663	1.41	874A1928	29089
18	677	3.78	875A1928	41845
16	682	1.12	873A2028	11500
16	740	1.39	874A2028	29084
16	739	2.87	875A2028	41861
14	724	1.06	873A2128	11500
14	829	1.27	874A2128	29084
14	841	1.59	874A4028	29056
14	829	2.60	875A2128	41872
13	901	1.08	874A2228	29084
13	897	3.08	875A2228	41872
12	1000	0.97	874A2328	29027
12	972	1.38	874A4128	28960
12	1024	2.78	875A2328	41844
11	1014	1.08	874A4228	29006
10	1128	0.99	874A2428	29000
10	1152	2.00	875A2428	41817
9	1238	0.92	874A2528	29000
9	1262	1.86	875A2528	41822
8	1445	0.93	874A4528	28900
6.5	1666	1.48	875A2628	41744
6.5	1803	3.09	876A2628	53736
5.6	1908	1.33	875A2728	41784
5.6	2011	2.77	876A2728	53727

2.2 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
165	107	1.27	871A0136	5282
165	106	1.96	872A0136	7440
165	109	3.40	873A0136	11928
121	144	1.03	871A0236	5268
121	147	1.62	872A0236	7440
121	152	2.80	873A0236	11905
110	163	0.94	871A0336	5270
110	161	1.53	872A0336	7440
110	170	2.61	873A0336	11905
97	183	0.87	871A0436	5260
97	182	1.42	872A0436	7435
97	191	2.44	873A0436	11866
88	185	1.72	872A0536	7440
88	191	2.69	873A0536	11900
88	205	3.49	874A0536	27500
76	230	1.22	872A0636	7440
76	240	2.11	873A0636	11833
76	237	3.70	874A0636	28200
67	259	1.13	872A0736	7433
67	272	1.95	873A0736	11833
67	269	3.42	874A0736	29200
62	254	1.35	872A0836	7433
62	266	2.18	873A0836	11833
62	282	2.77	874A0836	29200
57	278	1.26	872A0936	7433
57	296	2.01	873A0936	11833
57	315	2.54	874A0936	29200
50	312	1.16	872A1036	7426
50	331	1.84	873A1036	11808
50	347	2.37	874A1036	29200
43	395	0.86	872A1136	7420
43	427	1.46	873A1136	11660
43	406	1.95	874A1136	28748
40	391	0.96	872A1236	7420
40	413	1.54	873A1236	11708
40	448	1.94	874A1236	29200
40	453	3.97	875A1236	41900
35	440	0.88	872A1336	7420
35	465	1.40	873A1336	11697
35	507	1.76	874A1336	29200
35	506	3.64	875A1336	41900
30	598	1.16	873A1436	11566
30	575	1.51	874A1436	29100
30	576	3.77	875A1436	41063
28	637	1.11	873A1536	11500
28	648	1.36	874A1536	29100
28	646	3.48	875A1536	41638
25	627	1.11	873A1636	11600
25	670	1.41	874A1636	29104
25	690	2.84	875A1636	41900
22	720	1.00	873A1736	11500
22	764	1.27	874A1736	29056
22	797	2.52	875A1736	41900
20	886	1.05	874A1836	29056
20	901	2.76	875A1836	41828
18	970	0.96	874A1936	29008

Series C Gearboxes : Motorised selection

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
18	989	2.59	875A1936	41805
16	1082	0.95	874A2036	29000
16	1081	1.96	875A2036	41833
15	1211	1.78	875A2136	41852
14	1211	0.87	874A2136	29000
14	1229	1.09	874A4036	28983
14	1311	2.10	875A2236	41852
14	1280	3.79	876A2136	53722
13	1376	3.23	876A2236	53731
12	1421	0.94	874A4136	28838
12	1497	1.90	875A2336	41804
12	1539	2.92	876A2336	53714
10	1684	1.37	875A2436	41756
10	1772	2.98	876A2436	53696
9	1845	1.27	875A2536	41765
9	1950	2.78	876A2536	53679
7	2435	1.01	875A2636	41630
7	2635	2.12	876A2636	53625
6	2789	0.91	875A2736	41700
6	2939	1.90	876A2736	53600
4	3876	1.44	876A2645	53443
4	4064	2.17	877A2645	87347

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
22	1087	1.85	875A1738	41869
20	1229	2.02	875A1838	41794
20	1250	3.41	876A1838	53723
19	1349	1.89	875A1938	41758
19	1380	3.12	876A1938	53704
16	1474	1.43	875A2038	41801
16	1578	2.98	876A2038	53684
14	1652	1.30	875A2138	41828
14	1745	2.78	876A2138	53665
13	1788	1.54	875A2238	41828
13	1877	2.37	876A2238	53681
12	2042	1.21	875A2338	41757
12	2098	2.14	876A2338	53651
12	2064	3.87	877A2338	87400
10	2296	1.00	875A2438	41686
10	2417	2.19	876A2438	53621
10	2462	3.15	877A2438	87381
9	2517	1.00	875A2538	41700
9	2660	2.04	876A2538	53592
9	2818	2.82	877A2538	87372
6.4	3593	1.55	876A2638	53497
6.4	3757	2.23	877A2638	87369
5.7	4007	1.39	876A2738	53454
5.7	4021	2.11	877A2738	87369

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
18	1827	2.35	876A1946	53653
18	1787	1.43	875A1946	41701
16	1951	1.09	875A2046	41760
15	2100	3.39	877A2046	87400
15	2089	2.25	876A2046	53624
14	2322	3.12	877A2146	87385
14	2311	2.10	876A2146	53594
14	2188	0.99	875A2146	41800
13	2551	3.39	877A2246	87400
13	2485	1.79	876A2246	53618
12	2733	2.92	877A2346	87400
12	2779	1.62	876A2346	53573
12	2368	1.17	875A2246	41800
10	3260	2.38	877A2446	87359
10	3200	1.65	876A2446	53528
10	2704	1.05	875A2346	41700
9	3732	2.13	877A2546	87338
9	3521	1.54	876A2546	53482
6.5	4974	1.68	877A2646	87332
6.5	4758	1.17	876A2646	53338
5.7	5324	1.59	877A2746	87332
5.7	5306	1.05	876A2746	53272

3.0 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
171	147	0.93	871A0138	5280
171	145	1.44	872A0138	7440
171	149	2.50	873A0138	11894
123	200	1.19	872A0238	7440
123	208	2.05	873A0238	11858
123	201	3.64	874A0238	24654
116	220	1.12	872A0338	7440
116	232	1.92	873A0338	11858
116	227	3.37	874A0338	25318
100	249	1.04	872A0438	7432
100	260	1.79	873A0438	11802
100	249	3.19	874A0438	25990
90	253	1.26	872A0538	7440
90	261	1.98	873A0538	11851
90	279	2.56	874A0538	27218
80	314	0.90	872A0638	7440
80	328	1.55	873A0638	11752
80	323	2.72	874A0638	27800
70	354	0.83	872A0738	7430
70	370	1.43	873A0738	11752
70	367	2.51	874A0738	28732
62	347	0.99	872A0838	7430
62	362	1.60	873A0838	11752
62	385	2.03	874A0838	28898
58	379	0.93	872A0938	7430
58	403	1.47	873A0938	11752
58	430	1.86	874A0938	28943
58	434	3.80	875A0938	38856
50	426	0.85	872A1038	7420
50	451	1.35	873A1038	11715
50	473	1.74	874A1038	29018
50	480	3.54	875A1038	39518
45	583	1.07	873A1138	11544
45	554	1.43	874A1138	28530
45	577	3.37	875A1138	40736
40	563	1.13	873A1238	11615
40	611	1.42	874A1238	29151
40	618	2.91	875A1238	41500
35	634	1.03	873A1338	11600
35	691	1.29	874A1338	29151
35	690	2.67	875A1338	41563
33	785	2.76	875A1438	41657
31	815	0.85	873A1438	11400
31	785	1.11	874A1438	29051
29	883	1.00	874A1538	29051
29	881	2.55	875A1538	41512
26	913	1.04	874A1638	29057
26	942	2.08	875A1638	41884
22	1042	0.93	874A1738	28986

4.0 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
173	193	3.19	874A0146	22778
173	197	1.89	873A0146	11851
173	192	1.09	872A0146	7440
130	267	2.75	874A0246	24347
130	275	1.55	873A0246	11801
130	265	0.90	872A0246	7440
116	301	2.55	874A0346	24965
116	308	1.45	873A0346	11801
116	291	0.85	872A0346	7440
100	329	2.41	874A0446	25604
100	344	1.35	873A0446	11721
90	369	3.76	875A0546	34793
90	370	1.93	874A0546	26865
90	346	1.49	873A0546	11790
80	431	3.66	875A0646	35596
80	428	2.05	874A0646	27300
80	435	1.17	873A0646	11651
70	483	3.41	875A0746	36798
70	485	1.90	874A0746	28147
70	491	1.08	873A0746	11651
65	519	3.04	875A0846	37796
65	509	1.53	874A0846	28520
65	480	1.20	873A0846	11651
58	574	2.87	875A0946	38426
58	570	1.41	874A0946	28622
58	534	1.11	873A0946	11651
50	636	2.67	875A1046	39040
50	626	1.31	874A1046	28792
50	597	1.02	873A1046	11600
45	765	2.55	875A1146	40031
45	734	1.08	874A1146	28526
45	772	0.81	873A1146	11400
40	819	2.20	875A1246	41000
40	810	1.08	874A1246	29090
40	746	0.85	873A1246	11500
35	913	2.01	875A1346	41143
35	915	0.98	874A1346	29090
33	1071	3.76	876A1446	53733
33	1040	2.09	875A1446	40150
33	1039	0.84	874A1446	28990
29	1189	3.44	876A1546	53716
29	1167	1.93	875A1546	41353
26	1247	1.57	875A1646	41866
22	1440	1.40	875A1746	41832
20	1655	2.57	876A1846	53682
20	1628	1.53	875A1846	41751

Series C Gearboxes : Motorised selection

Double reduction, see page
Triple reduction, see page

Higher ratios are available on request.

5.5 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
175	270	1.38	873A0154	11786
175	265	2.33	874A0154	22426
130	377	1.13	873A0254	11715
130	366	2.00	874A0254	23887
130	371	3.56	875A0254	31175
119	413	3.34	875A0354	31897
110	422	1.06	873A0354	11715
110	412	1.86	874A0354	24437
100	472	0.99	873A0454	11600
100	452	1.76	874A0454	25025
100	457	3.12	875A0454	32868
90	474	1.09	873A0554	11700
90	507	1.41	874A0554	26337
90	506	2.74	875A0554	34371
77	596	0.85	873A0654	11500
77	587	1.50	874A0654	26550
77	591	2.67	875A0654	35010
72	665	1.38	874A0754	27269
72	662	2.49	875A0754	36130
65	658	0.88	873A0854	11500
65	698	1.12	874A0854	27965
65	711	2.22	875A0854	37210
58	732	0.81	873A0954	11500
58	781	1.03	874A0954	28141
58	787	2.09	875A0954	37782
54	858	0.96	874A1054	28452
54	871	1.95	875A1054	38325
46	1048	1.86	875A1154	38975
41	1122	1.60	875A1254	40250
37	1251	1.47	875A1354	40512
33	1425	1.52	875A1454	39389
33	1468	2.74	876A1454	53698
29	1599	1.41	875A1554	41116
29	1629	2.51	876A1554	53673
27	1709	1.15	875A1654	41837
23	1973	1.02	875A1754	41775
21	2231	1.12	875A1854	41686
21	2268	1.88	876A1854	53622
21	2272	3.34	877A1854	85716
19	2448	1.05	875A1954	41615
19	2504	1.72	876A1954	53577
19	2606	2.94	877A1954	86407
16	2863	1.64	876A2054	53533
16	2878	2.47	877A2054	87400
14	3167	1.53	876A2154	53488
14	3182	2.28	877A2154	87374
13	3405	1.30	876A2254	53525
13	3496	2.47	877A2254	87400
12	3808	1.18	876A2354	53456
12	3745	2.13	877A2354	87400
10	4385	1.21	876A2454	53387
10	4467	1.74	877A2454	87325
9	4825	1.12	876A2554	53318
9	5114	1.56	877A2554	87287
6.5	6519	0.86	876A2654	53100
6.5	6816	1.23	877A2654	87275
6	7295	1.16	877A2754	87275

7.5 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
180	367	1.01	873A0156	11700
180	360	1.71	874A0156	21957
180	355	3.20	875A0156	28647
130	513	0.83	873A0256	11600
130	497	1.47	874A0256	23273
130	504	2.62	875A0256	30675
118	561	1.37	874A0356	23732
118	561	2.46	875A0356	31350
107	614	1.30	874A0456	24252
107	622	2.30	875A0456	32243
92	689	1.04	874A0556	25632
92	688	2.02	875A0556	33809
82	797	1.10	874A0656	25550
82	803	1.97	875A0656	34229
72	904	1.02	874A0756	26100
72	899	1.83	875A0756	35239
66	949	0.82	874A0856	27200
66	966	1.63	875A0856	36429
59	1070	1.54	875A0956	36922
53	1184	1.44	875A1056	37370
46	1424	1.37	875A1156	37565
41	1525	1.18	875A1256	39250
37	1701	1.08	875A1356	39671
33	1937	1.12	875A1456	38375
33	1995	2.02	876A1456	53652
33	1975	3.61	877A1456	82939
29	2173	1.04	875A1556	40800
29	2214	1.85	876A1556	53616
29	2188	3.32	877A1556	83701
26	2322	0.84	875A1656	41800
21	3032	0.82	875A1856	41600
21	3082	1.38	876A1856	53541
21	3087	2.46	877A1856	84696
19	3412	1.26	876A1956	53476
19	3541	2.17	877A1956	85806
16	3891	1.21	876A2056	53412
16	3911	1.82	877A2056	87400
14	4304	1.10	876A2156	53347
14	4324	1.67	877A2156	87358
13	4628	0.96	876A2256	53400
13	4751	1.82	877A2256	87400
12	5174	0.87	876A2356	53300
12	5089	1.57	877A2356	87400
10	5959	0.89	876A2456	53200
10	6070	1.28	877A2456	87279
9	6557	0.83	876A2556	53100
9	6949	1.15	877A2556	87219
6.5	9263	0.90	877A2656	87200
6	9913	0.85	877A2756	87200

11.0 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
180	526	1.17	874A0166	21137
180	520	2.19	875A0166	28018
180	539	3.93	876A0166	44500
132	727	1.01	874A0266	22200
132	737	1.79	875A0266	29800
132	741	3.26	876A0266	47600
118	820	0.94	874A0366	22500
118	820	1.68	875A0366	30393
118	831	3.05	876A0366	48700
107	898	0.89	874A0466	22900
107	909	1.57	875A0466	31150
107	928	2.85	876A0466	50100
94	1005	1.38	875A0566	32825
94	1075	2.40	876A0566	53100
83	1174	1.35	875A0666	32862
83	1194	2.45	876A0666	53300
74	1315	1.25	875A0766	33681
74	1326	2.29	876A0766	53800
66	1413	1.12	875A0866	35062
66	1473	1.98	876A0866	53800
66	1520	3.55	877A0866	73000
59	1564	1.05	875A0966	35418
59	1652	1.85	876A0966	53800
59	1651	3.35	877A0966	74000
53	1731	0.98	875A1066	35700
53	1841	1.73	876A1066	53800
53	1869	3.05	877A1066	75400
46	2082	0.94	875A1166	35100
46	2078	1.73	876A1166	53800
46	2126	3.01	877A1166	75100
40	2229	0.81	875A1266	37500
40	2355	1.48	876A1266	53800
40	2424	2.50	877A1266	79400
35	2634	1.38	876A1366	53700
35	2601	2.36	877A1366	81000
33	2916	1.38	876A1466	53572
33	2887	2.47	877A1466	80522
29	3236	1.26	876A1566	53515
29	3198	2.27	877A1566	81258
25	3601	1.13	876A1666	53600
25	3753	1.76	877A1666	87400
22	4091	1.04	876A1766	53500
22	4231	1.60	877A1766	87400
21	4505	0.95	876A1866	53400
21	4512	1.68	877A1866	82911
19	4973	0.86	876A1966	53300
19	5176	1.48	877A1966	84754
16	5687	0.83	876A2066	53200
16	5716	1.25	877A2066	87400
14	6320	1.15	877A2166	87331
13	6945	1.25	877A2266	87400
12	7438	1.07	877A2366	87400
10	8873	0.87	877A2466	87200

Series C Gearboxes : Motorised selection

15.0 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
183	716	0.86	874A0168	20200
183	707	1.61	875A0168	27300
183	733	2.89	876A0168	43852
132	1001	1.32	875A0268	28800
132	1007	2.40	876A0268	46717
118	1115	1.24	875A0368	29300
118	1130	2.25	876A0368	47715
118	1116	3.99	877A0368	60823
106	1235	1.16	875A0468	29900
106	1261	2.10	876A0468	49007
106	1265	3.70	877A0468	62817
91	1366	1.02	875A0568	31700
91	1460	1.77	876A0568	52131
91	1482	3.19	877A0568	66523
82	1595	0.99	875A0668	31300
82	1622	1.80	876A0668	51889
82	1640	3.16	877A0668	67047
75	1787	0.92	875A0768	31900
75	1803	1.69	876A0768	52636
75	1766	3.02	877A0768	68664
66	1920	0.82	875A0868	33500
66	2002	1.46	876A0868	53727
66	2065	2.61	877A0868	71917
57	2245	1.36	876A0968	53727
57	2244	2.47	877A0968	72823
51	2501	1.27	876A1068	53727
51	2540	2.25	877A1068	74061
46	2824	1.27	876A1168	53586
46	2890	2.21	877A1168	73069
39	3200	1.09	876A1268	53640
39	3294	1.84	877A1268	77673
35	3579	1.02	876A1368	53540
35	3535	1.74	877A1368	79147
33	3963	1.02	876A1468	53480
33	3923	1.82	877A1468	77759
30	4398	0.93	876A1568	53400
30	4347	1.67	877A1568	78467
25	4894	0.83	876A1668	53400
25	5100	1.30	877A1668	85327
22	5750	1.18	877A1768	85945
21	6132	1.24	877A1866	80870
18	7034	1.09	877A1968	83552
16	7768	0.92	877A2068	87400
14	8589	0.84	877A2168	87300

18.5 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
183	895	2.37	876A0176	43286
133	1230	1.97	876A0276	45945
133	1251	3.44	877A0276	59054
120	1379	1.84	876A0376	46853
120	1362	3.27	877A0376	60144
106	1540	1.72	876A0476	48051
106	1544	3.03	877A0476	62045
88	1783	1.45	876A0576	51284
88	1809	2.61	877A0576	65844
82	1980	1.47	876A0676	50655
82	2002	2.59	877A0676	66038
74	2201	1.38	876A0776	51618
74	2156	2.47	877A0776	67583
64	2444	1.19	876A0876	53663
64	2522	2.14	877A0876	70970
57	2741	1.11	876A0976	53663
57	2739	2.02	877A0976	71794
51	3054	1.04	876A1076	53663
51	3101	1.84	877A1076	72890
46	3447	1.04	876A1176	53400
46	3528	1.81	877A1176	71292
39	3907	0.89	876A1276	53500
39	4021	1.51	877A1276	76163
35	4316	1.42	877A1376	77526
35	4369	0.83	876A1376	53400
33	4838	0.83	876A1476	53400
33	4790	1.49	877A1476	75342
30	5306	1.37	877A1576	76025
25	6226	1.06	877A1676	83513
22	7019	0.96	877A1776	84672
21	7486	1.10	877A1876	79085
18	8586	0.89	877A1976	82500

22.0 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
184	1064	1.99	876A0178	42720
184	1066	3.50	877A0178	54676
133	1462	1.65	876A0278	45173
133	1488	2.89	877A0278	58426
119	1640	1.55	876A0378	45992
119	1620	2.75	877A0378	59464
106	1831	1.45	876A0478	47096
106	1836	2.55	877A0478	61273
88	2120	1.22	876A0578	50436
88	2151	2.20	877A0578	65164
82	2355	1.24	876A0678	49421
82	2381	2.18	877A0678	65029
74	2617	1.16	876A0778	50600
74	2564	2.08	877A0778	66502
64	2906	1.00	876A0878	53600
64	2999	1.80	877A0878	70023
58	3250	0.94	876A0978	53600
58	3258	1.70	877A0978	70764
51	3632	0.88	876A1078	53600
51	3687	1.55	877A1078	71719
46	4195	1.53	877A1178	69515
39	4782	1.27	877A1278	74652
36	5133	1.20	877A1378	75905
34	5696	1.25	877A1478	72925
30	6310	1.15	877A1578	73582
25	7405	0.89	877A1678	81700
22	8347	0.81	877A1778	83400
21	8903	0.85	877A1878	77300

30.0 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
184	1452	1.46	876A0188	41426
184	1454	2.56	877A0188	53641
134	1994	1.21	876A0288	43408
134	2029	2.12	877A0288	56991
120	2237	1.14	876A0388	44023
120	2209	2.01	877A0388	57911
106	2497	1.06	876A0488	44911
106	2504	1.87	877A0488	59508
88	2891	0.89	876A0588	48500
88	2934	1.61	877A0588	63611
83	3212	0.91	876A0688	46600
83	3247	1.60	877A0688	62723
76	3497	1.52	877A0788	64032
63	4089	1.32	877A0888	67858
58	4442	1.25	877A0988	68411
51	5028	1.14	877A1088	69042
46	5721	1.12	877A1188	65453
39	6520	0.93	877A1288	71200
36	6999	0.88	877A1388	72200
34	7767	0.92	877A1488	67400
30	8605	0.84	877A1588	68000

37.0 KW MOTOR

Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
185	1784	1.19	876A0194	40294
185	1787	2.09	877A0194	52735
134	2451	0.99	876A0294	41864
134	2494	1.72	877A0294	55735
120	2749	0.92	876A0394	42300
120	2715	1.64	877A0394	56552
106	3069	0.86	876A0494	43000
106	3078	1.52	877A0494	57964
89	3606	1.31	877A0594	62252
83	3991	1.30	877A0694	60705
76	4298	1.24	877A0794	61870
63	5026	1.07	877A0894	65964
58	5460	1.01	877A0994	66352
51	6181	0.92	877A1094	66700
46	7032	0.91	877A1194	61900

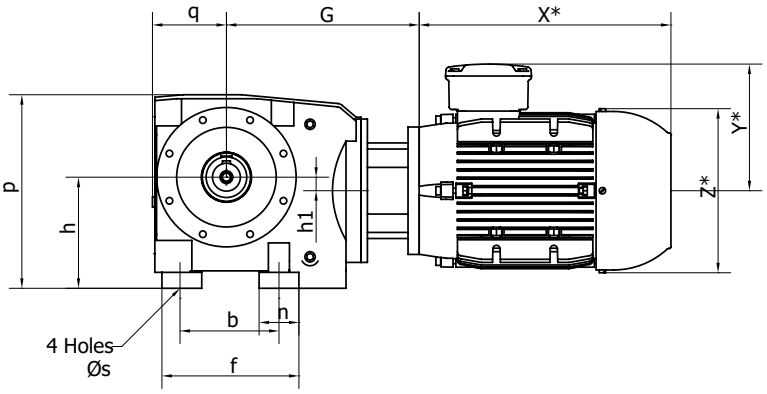
45.0 KW MOTOR

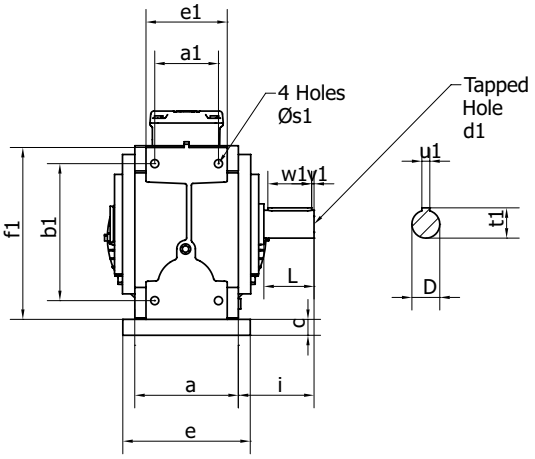
Nominal Output Rev/Min	Output Torque Nm	Service Factor	Unit Selection	Overhung Load N
185	2170	0.98	876A0195	39000
185	2173	1.72	877A0195	51700
134	2982	0.81	876A0295	40100
134	3033	1.42	877A0295	54300
122	3302	1.35	877A0395	55000
108	3743	1.25	877A0495	56200
89	4386	1.08	877A0595	60700
83	4854	1.07	877A0695	58400
76	5228	1.02	877A0795	59400
63	6113	0.88	877A0895	63800
58	6641	0.83	877A0995	64000

Series C Gearboxes : Dimensions motorised

Foot Mounted Motorised - with output shaft

Double/Triple Reduction





Unit Size	a	b	c	e	f	h	h1	i	n	p	q	s	a1	b1	e1	f1	s1	Shaft Dimensions						
																		D	L	t1	u1	v1	w1	d1
870	90	63	9	110	88	80	5.3	55	25	148	63	9	54	40	70	139	M8x1.25 x 15 deep	Ø20 k6	35	22.5	6	3	31	M6 x 1.0 x 16 deep
871	100	80	14	124	115	100	15	65	35	175	78	11	56	65	80	158	M10x1.5 x 20 deep	Ø25 k6	46	28.0	8	3	42	M10 x 1.5 x 22 deep
872	110	100	16	136	140	112	13	79	40	200	84	11	68	77	86	177	M10x1.5 x 18 deep	Ø30 k6	60	33.0	8	3	53	M10 x 1.5 x 22 deep
873	130	130	20	160	172	140	17	95	50	243	110	14	80	96	102	218	M12x1.75 x 20 deep	Ø35 k6	63	38.0	10	3	55	M12 x 1.75 x 25 deep
								130										Ø45 k6 *	98	48.5	14	5	80	M16 x 2.0 x 36 deep

* Heavy Duty output shaft for 873 unit available as option (unit will have Ø35mm shaft unless requested)

G Dimension/weight - excluding motor

Unit Size		Motor Frame Size							Triple +
		63	71	80	90	100	112	132	
870	G	134	138	151	161	169	169	-	56
	kg	13	12	13	14	17	17	-	1.5
871	G	139	143	156	166	174	174	-	56
	kg	18	17	18	18	21	21	-	1.5
872	G	152	156	169	179	187	187	-	56
	kg	12	12	13	13	15	15	-	2.5
873	G	161	167	185	195	222	222	222	88
	kg	20	20	21	22	25	25	27	2.5

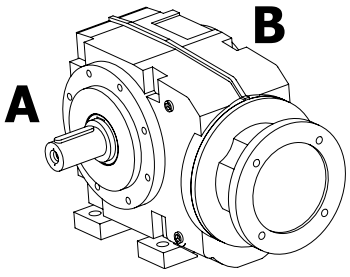
All weights are approximate and exclude lubricant and packing

* For Motor weight and dimensions X,Y and Z - please refer to motor tables on page 314

Recommended Fixing Bolts

Unit Size		Fasteners & Tightening Torque
870	Size	4 off M8 x 20mm long
	Nm	Tighten to - 25Nm
871	Size	4 off M10 x 30mm long
	Nm	Tighten to - 50Nm
872	Size	4 off M10 x 30mm long
	Nm	Tighten to - 50Nm
873	Size	4 off M12 x 40mm long
	Nm	Tighten to 85Nm

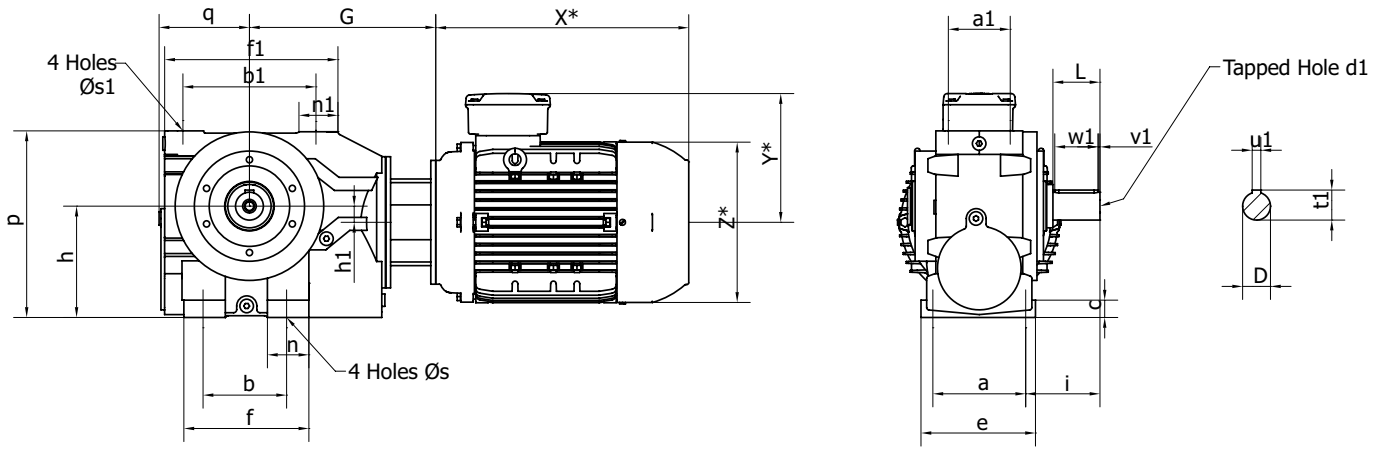
Handing



Series C Gearboxes : Non-motorised selection

Foot Mounted Motorised - with output shaft

Double/Triple Reduction



Unit Size	a	b	c	e	f	h	h1	i	n	p	q	s	a1	b1	e1	f1	s1	Shaft Dimensions						
																		D	L	t1	u1	v1	w1	d1
874	150	135	28	185	202	180	26	120	67	302	143	18	100	215	280	63	M20x2.5 x 34 deep	Ø45 k6	76	48.5	14	3	70	M16 x 2.0 x 36 deep
875	200	180	35	250	260	225	28	155	80	375	168	22	120	250	326	71	M20x2.5 x 34 deep	Ø60 m6	120	64.0	18	3	110	M12 x 1.75 x 28 deep
876	250	235	40	305	320	280	40	170	85	457	195	26	135	290	380	85	M24x3.0 x 45 deep	Ø70 m6	135	74.5	20	3	125	M16 x 2.0 x 36 deep
877	300	310	45	360	420	335	65	216	110	565	235	26	150	345	460	107	M24x3.0 x 45 deep	Ø90 m6	170	95.0	25	3	160	M16 x 2.0 x 36 deep

G Dimensions/weight - excluding motor

Unit Size		Motor Frame Size										
		63	71	80	90	100	112	132	160	180	200	225
874 Double	G	-	-	257	267	279	279	301	309	-	-	-
	kg	-	-	78	79	81	81	83	88	-	-	-
874 Triple	G	308	314	332	342	369	369	369	-	-	-	-
	kg	88	88	88	88	90	90	90	-	-	-	-
875	G	-	-	337	337	343	343	343	373	-	-	-
	kg	-	-	130	130	132	132	135	152	-	-	-
876	G	-	-	358	358	364	364	364	399	399	399	426
	kg	-	-	212	212	214	214	217	222	235	239	243
877	G	-	-	-	-	402	402	402	437	437	437	464
	kg	-	-	-	-	343	343	346	351	364	368	372

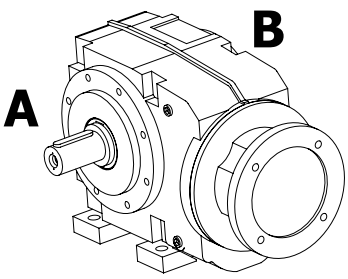
All weights are approximate and exclude lubricant and packing

* For Motor weight and dimensions X,Y and Z - please refer to motor tables on page 314

Recommended Fixing Bolts

Unit Size		Fasteners & Tightening Torque
874	Size	4 off M16 x 50mm long
	Nm	Tighten to 200Nm
875	Size	4 off M20 x 65mm long
	Nm	Tighten to 350Nm
876	Size	4 off M24 x 75mm long
	Nm	Tighten to 610Nm
877	Size	4 off M24 x 80mm long
	Nm	Tighten to 610Nm

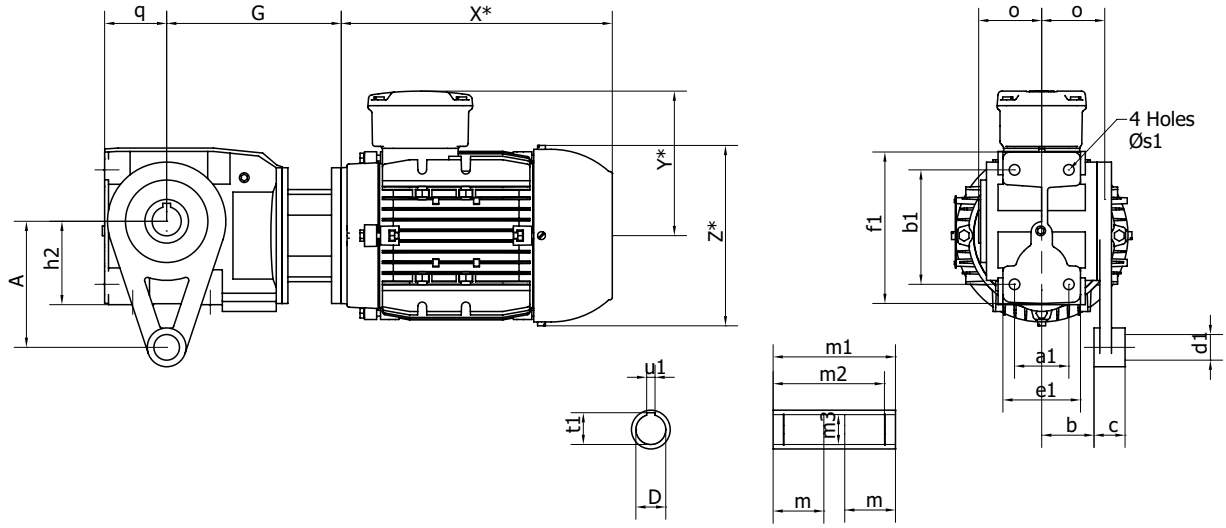
Handing



Series C Gearboxes : Dimensions motorised

Shaft Mounted Motorised - with torque arm

Double/Triple Reduction



Unit Size	A	b	c	d1	h2	o	q	a1	b1	e1	f1	s1	Shaft Dimensions							
													D	m1	t1	u1	m	m2	m3	Shaft Fixing Bolt
870	110	47	36	10.3	79.5	62	54	54	40	70	139	M8x1.25 x 15 deep	Ø20 H7	124	22.8	6	52	104	20.2	M6 x 1.0 x 40mm long
871	130	52	36	10.3	93.0	65	64	56	65	80	158	M10x1.5 x 20 deep	Ø25 H7 *	130	28.3	8	54	122	30.2	M10 x 1.5 x 50mm long
													Ø30 H7	130	33.3	8	54	122	30.2	M10 x 1.5 x 50mm long
872	160	52	36	10.3	112.0	70	68	68	77	86	177	M10x1.5 x 18 deep	Ø30 H7 *	140	33.3	8	56	127	35.3	M10 x 1.5 x 50mm long
													Ø35 H7	140	38.3	10	56	127	35.3	M12 x 1.75 x 55mm long
873	200	71.5	44	16.5	139.5	90	90	80	96	102	218	M12x1.75 x 20 deep	Ø40 H7 *	180	43.3	12	70	156	45.3	M16 x 2.0 x 70mm long
													Ø45 H7	180	48.3	14	70	156	45.3	M16 x 2.0 x 70mm long

* Alternate Bore Option

G Dimension/weight - excluding motor

Unit Size		Motor Frame Size							Triple +
		63	71	80	90	100	112	132	
870	G	134	138	151	161	169	169		56
	kg	13	12	13	14	17	17		1.5
871	G	139	143	156	166	174	174		56
	kg	18	17	18	18	21	21		1.5
872	G	152	156	169	179	187	187		56
	kg	12	12	13	13	15	15		2.5
873	G	161	167	185	195	222	222	222	88
	kg	20	20	21	22	25	25	27	2.5

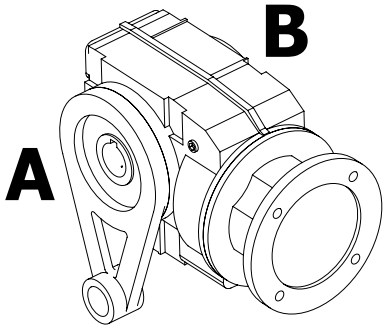
All weights are approximate and exclude lubricant and packing

* For Motor weight and dimensions X,Y and Z - please refer to motor tables on page 314

Torque Arms

Unit Size		
870	Part Number	870A9600
	Available Positions	90° increments
871	Part Number	871A9600
	Available Positions	45° increments
872	Part Number	872A9600
	Available Positions	45° increments
873	Part Number	873A9600
	Available Positions	45° increments

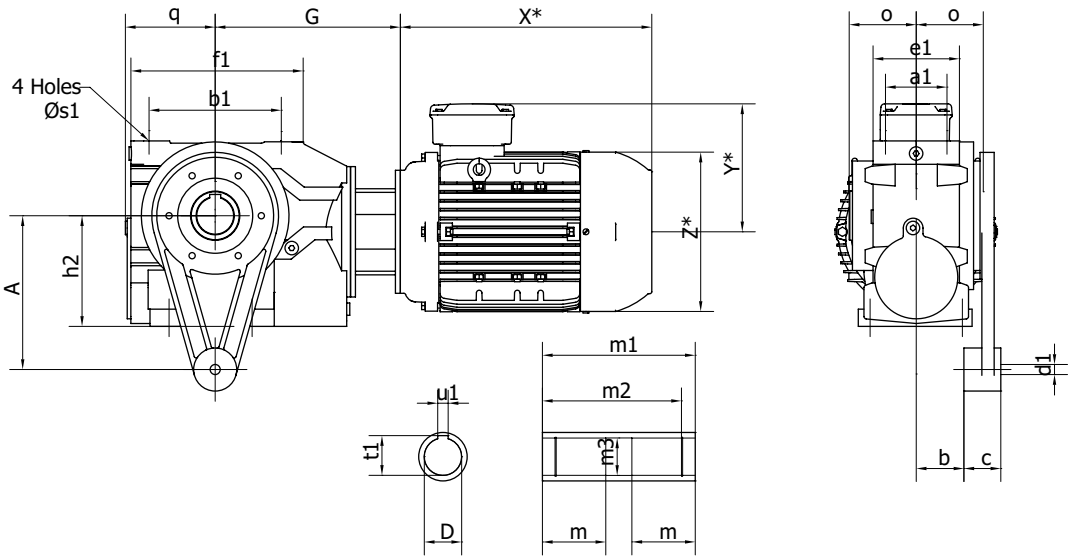
Handing



Series C Gearboxes : Dimensions motorised

Shaft Mounted Motorised - with torque arm

Double/Triple Reduction



Unit Size	A	b	c	d1	h2	o	q	a1	b1	f1	n1	s1	Shaft Dimensions							
													D	m1	t1	u1	m	m2	m3	Shaft Fixing Bolt
874	250	77.5	60	16.4	180	109	143	100	215	280	63	M20x2.5 x 34 deep	Ø50 H7 *	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
													Ø60 H7	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
875	310	85.5	60	16.4	225	125	168	120	250	326	71	M20x2.5 x 34 deep	Ø60 H7 *	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
													Ø70 H7	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
876	380	98	80	25	280	150	195	135	290	380	85	M24x3.0 x 45 deep	Ø70 H7 *	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
													Ø90 H7	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
877	430	137	80	25	335	175	235	150	345	460	107	M24x3.0 x 45 deep	Ø80 H7 *	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep
													Ø100 H7	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep

* Alternate bore option

G Dimension/weight - excluding motor

Unit Size		Motor Frame Size										
		63	71	80	90	100	112	132	160	180	200	225
874 Double	G			257	267	279	279	301	309			
	kg			78	79	81	81	83	88			
874 Triple	G	308	314	332	342	369	369	369				
	kg	88	88	88	88	90	90	90				
875	G			337	337	343	343	343	373			
	kg			130	130	132	132	135	152			
876	G			358	358	364	364	364	399	399	399	426
	kg			212	212	214	214	217	222	235	239	243
877	G					402	402	402	437	437	437	464
	kg					343	343	346	351	364	368	372

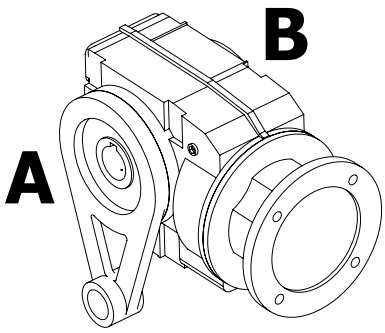
All weights are approximate and exclude lubricant and packing

* For Motor weight and dimensions X,Y and Z - please refer to motor tables on page 314

Torque Arms

Unit Size		
874	Part Number	874A9600
	Available Positions	60° increments
875	PartNumber	875A9600
	Available Positions	45° increments
876	Part Number	876A9600
	Available Positions	60° increments
877	Part Number	877A9600
	Available Positions	36° increments

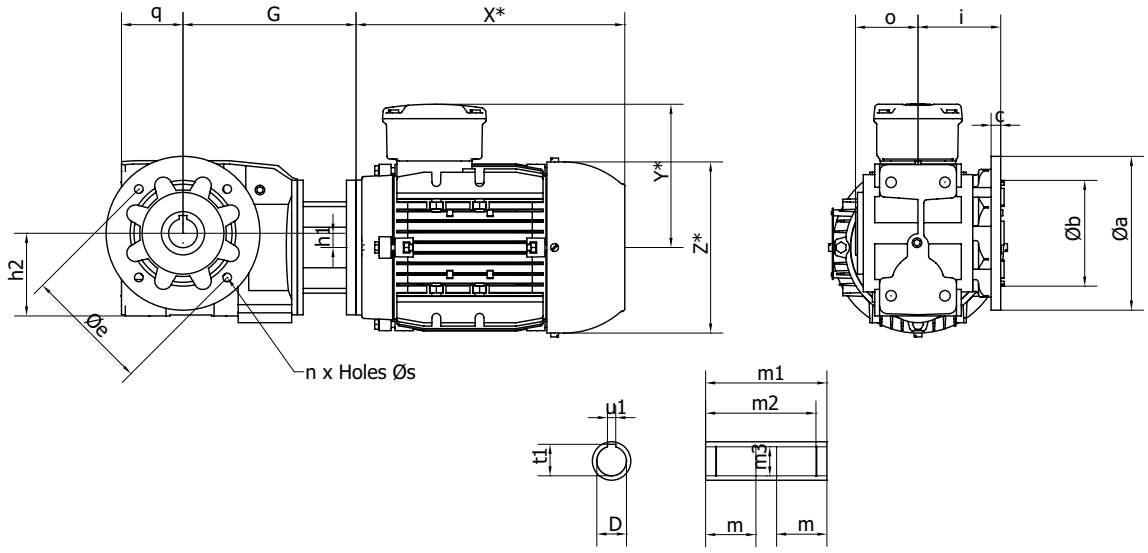
Handing



Series C Gearboxes : Dimensions motorised

Shaft Mounted Motorised - with flange

Double/Triple Reduction



Unit Size	Flange Dimensions						h2	h1	q	o	i	Shaft Dimensions							
	Øa	Øb	c	Øe	n	Øs						D	m1	t1	u1	m	m2	m3	Shaft Fixing Bolt
870	120 **	80 j6	8	100	4	6.6	70.5	5.3	54	62	75	Ø20 H7	124	22.8	6	52	104	20.2	M6 x 1.0 x 40mm long
	160	110 j6	10	130	4	9													
871	160	110 j6	10	130	4	9	86	15	64	65	86	Ø25 H7 *	130	28.3	8	54	122	30.2	M10 x 1.5 x 50mm long
												Ø30 H7	130	33.3	8	54	122	30.2	M10 x 1.5 x 50mm long
872	200	130 j6	12	165	4	11	96	13	68	70	107	Ø30 H7 *	140	33.3	8	56	127	35.3	M10 x 1.5 x 50mm long
												Ø35 H7	140	38.3	10	56	127	35.3	M12 x 1.75 x 55mm long
873	200	130 j6	12	165	4	11	119.5	17	90	90	120	Ø40 H7 *	180	43.3	12	70	156	45.3	M16 x 2.0 x 70mm long
												Ø45 H7	180	48.3	14	70	156	45.3	M16 x 2.0 x 70mm long

* Alternate Bore Option ** Reduced flange option

G Dimension/weight - excluding motor

Unit Size		Motor Frame Size							Triple +
		63	71	80	90	100	112	132	
870	G	134	138	151	161	169	169	-	56
	kg	13	12	13	14	17	17	-	1.5
871	G	139	143	156	166	174	174	-	56
	kg	18	17	18	18	21	21	-	1.5
872	G	152	156	169	179	187	187	-	56
	kg	12	12	13	13	15	15	-	2.5
873	G	161	167	185	195	222	222	222	88
	kg	20	20	21	22	25	25	27	2.5

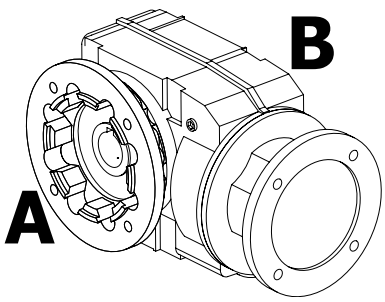
All weights are approximate and exclude lubricant and packing

* For Motor weight and dimensions X,Y and Z - please refer to motor tables on page 314

Torque Arms

Unit Size		Part No
870**	Output Flange	870A9990
	Extended Shaft	870A9790
870	Output Flange	870A9900
	Extended Shaft	870A9790
871	Output Flange	871A9900
	Extended Shaft	871A9790
872	Output Flnage	872A9900
	Extended Shaft	872A9790
873	Output Flange	873A9900
	Output Shaft	873A9790

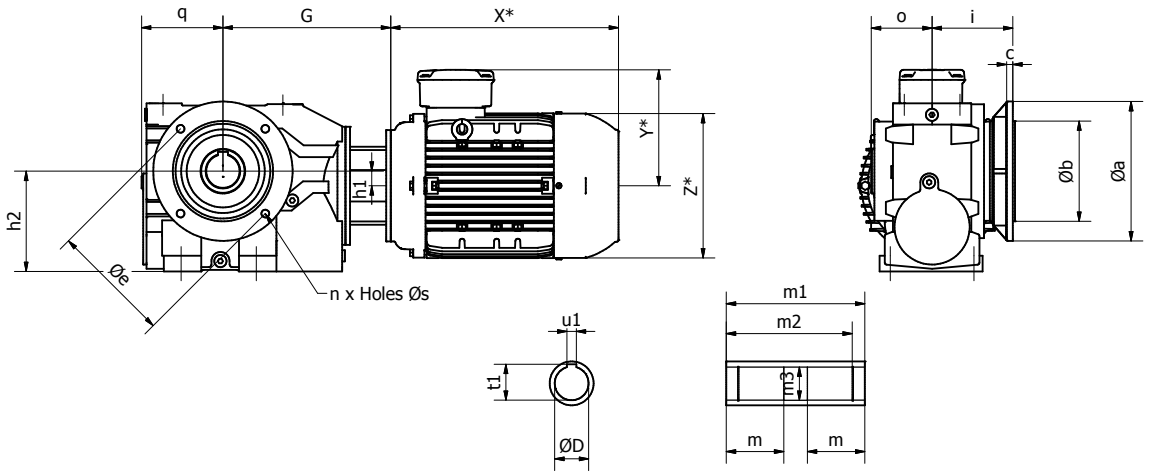
Handing



Series C Gearboxes : Dimensions motorised

Shaft Mounted Motorised - with flange

Double/Triple Reduction



Unit Size	Flange Dimensions						h2	h1	q	o	i	Shaft Dimensions							
	Øa	Øb	c	Øe	n	Øs						D	m1	t1	u1	m	m2	m3	Shaft Fixing Bolt
874	250	180 j6	12	215	4	14	180	26	143	109	145	Ø50 H7 *	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
												Ø60 H7	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
875	350	250 h6	18	300	4	18	225	28	168	125	170	Ø60 H7 *	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
												Ø70 H7	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
876	450	350 h6	20	400	8	18	280	40	195	150	200	Ø70 H7 *	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
												Ø90 H7	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
877	450	350 h6	22	400	8	18	335	65	235	175	232	Ø80 H7 *	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep
												Ø100 H7	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep

G Dimension/weight - excluding motor

Unit Size		Motor Frame Size										
		63	71	80	90	100	112	132	160	180	200	225
874 Double	G	-	-	257	267	279	279	301	309	-	-	-
	kg	-	-	78	79	81	81	83	88	-	-	-
874 Triple	G	308	314	332	342	369	369	369	-	-	-	-
	kg	88	88	88	88	90	90	90	-	-	-	-
875	G	-	-	337	337	343	343	343	373	-	-	-
	kg	-	-	130	130	132	132	135	152	-	-	-
876	G	-	-	358	358	364	364	364	399	399	399	426
	kg	-	-	212	212	214	214	217	222	235	239	243
877	G	-	-	-	-	402	402	402	437	437	437	464
	kg	-	-	-	-	343	343	346	351	364	368	372

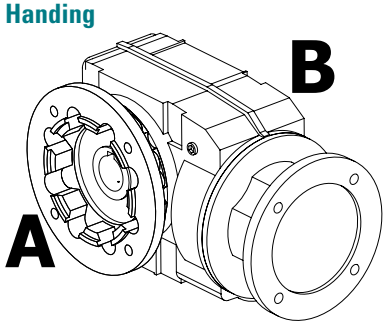
All weights are approximate and exclude lubricant and packing

* For Motor weight and dimensions X,Y and Z - please refer to motor tables on page 314

Flange and Shaft

Unit Size		Part No
874	Output Flange	874A9900
	Extended Shaft	874A9790
875	Output Flange	875A9900
	Extended Shaft	875A9790
876	Output Flange	876A9900
	Extended Shaft	876A9790
877	OUtput Flange	877A9900
	Extended Shaft	877A9790

Handing



Series C Gearboxes : Non motorised selection

SELECTION OF NON-MOTORISED REDUCER UNITS

(a) Service Factor

From Table 1 select the Mechanical Service Factor (Fm) applicable to the drive. If the unit is to be subjected to frequent stop/starts in excess of 10 times per day then multiply factor Fm by Factor Fs from table 2.

(b) Power Required

Determine either the absorbed torque (Nm) or the input power (kW) required by the machine. The absorbed Torque can be calculated using the following formula:

$$M_2 = \frac{P_2 \times 9550}{n_2}$$

M_2 = required output torque (Nm)
P_2 = absorbed power (kW)
n_2 = machine speed (Rev/Min)

(c) Design Power

Multiply either the absorbed torque (Nm) or the power (kW) by the service factor determined in (a)

(d) Ratio Required

Divide the input shaft speed by the required output shaft speed to determine the gear ratio.

(e) Unit Selection

Refer to the gear ratio closest to the value determined in step (d).
Check in column 3 for the nearest input shaft speed, then read across the table at this speed until a unit is found with either an output torque or input power that equals or exceeds the design power value determined in step (c) above. Column 4 gives the approximate output shaft speed for the selected speed and ratio combination.

TABLE 1 – SERVICE FACTORS (Fm)

Types of Driven Machine	Operational Hours		
	Under 3	3 to 10	Over 10
Uniform Loads Agitators and Mixers – liquid or semi-liquid Blowers – centrifugal Bottling Machines Conveyors and Elevators – uniformly loaded Cookers Laundry Washing Machines – non-reversing Line Shafts Pumps – centrifugal and gear Wire Drawing Machines	0.80	1.00	1.25
Moderate Shock Loads Agitators and Mixers – variable density Conveyors – not uniformly loaded Cranes travel motion and hoisting Drawbench Feeders – pulsating load Hoists Kilns Laundry Tumblers Lifts Pumps – reciprocating with 3 or more cylinders Pump and Paper Making Machinery Rubber Mixers and Calendars Screens – rotary Textile Machinery	1.00	1.25	1.50
Heavy Shock Loads Brick Presses Briquetting Machines Conveyors – reciprocating and shaker Crushers Feeders – reciprocating Hammer Mills Pumps – reciprocating, 1 or 2 cylinders Rubber Masticators Screens – vibrating	1.50	1.75	2.00

TABLE 2 - STARTING FACTOR (Fs)

	Start/stops per hour					
	Up to 1	5	10	40	60	>200
Factor Fs	1.00	1.03	1.06	1.10	1.15	1.20

Series C Gearboxes : Non-motorised selection

DOUBLE REDUCTION - RATINGS AT 1450 RPM

Ratio Code	Nominal Ratio	Output Speed Rev/Min	870		871		872		873		874		875		876		877	
			Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm
01	8	181	1.72	80	2.84	137	4.39	209	7.62	372	12.90	618	20.70	977	43.20	2120	75.90	38730
02	11.2	131	1.39	87	2.31	149	3.62	238	6.26	427	11.10	734	19.70	1320	35.90	2420	62.70	4300
03	12.5	121	1.27	90	2.11	154	3.42	247	5.85	446	10.30	768	18.50	1380	33.60	2540	59.60	4450
04	14	104	1.16	93	1.94	159	3.17	259	5.46	466	9.75	796	17.30	1430	31.40	2650	55.30	4680
05	16	90	1.11	87	1.78	144	3.86	320	6.03	517	7.81	716	15.20	1390	26.40	2580	47.70	4730
06	18	80	0.97	99	1.62	168	2.74	282	4.72	508	8.29	879	14.80	1580	26.90	2920	47.20	5180
07	20	72	0.92	101	1.54	171	2.54	295	4.37	531	7.66	921	13.80	1650	25.20	3040	45.10	5330
08	22	66	0.91	94	1.45	156	3.03	345	4.87	579	6.19	781	12.30	1580	22.00	2820	39.00	5390
09	25	58	0.83	97	1.33	161	2.83	352	4.49	594	5.69	803	11.60	1650	20.30	3050	36.90	5540
10	28	52	0.77	101	1.23	167	2.59	362	4.13	611	5.30	822	10.80	1700	19.00	3180	33.60	5710
11	32	45	0.64	113	1.08	192	1.93	341	3.26	623	5.87	1070	10.30	1950	19.00	3590	33.10	6400
12	36	40	0.65	107	1.03	176	2.16	378	3.45	637	4.35	872	8.88	1800	16.30	3490	27.50	6060
13	40	36	0.61	110	0.98	179	1.97	388	3.13	651	3.95	895	8.14	1840	15.20	3640	26.00	6150
14	45	32	0.52	122	0.87	206	1.52	382	2.60	695	4.66	1200	8.43	2170	15.20	4030	27.20	7140
15	50	29	0.46	127	0.76	209	1.44	391	2.49	709	4.30	1250	7.79	2250	13.90	4090	25.40	7390
16	56	26	0.48	120	0.77	196	1.58	415	2.49	698	3.16	946	6.35	1960	12.40	4060	19.40	6620
17	63	23	0.44	124	0.70	202	1.45	427	2.24	721	2.84	970	5.64	2010	11.40	4240	17.60	6770
18	71	20	0.38	143	0.54	206	1.06	406	1.87	766	3.38	1340	6.18	2490	10.40	4260	20.10	8250
19	80	18	0.35	147	0.46	192	0.94	404	1.71	766	3.10	1340	5.79	2560	9.51	4300	17.80	8390
20	90	16	0.37	139	0.59	227	1.15	478	1.72	766	2.13	1030	4.39	2120	9.11	4710	13.70	7120
21	100	14	0.33	143	0.53	234	1.08	482	1.62	766	1.94	1050	3.99	2160	8.48	4850	12.60	7240
22	112	13	0.23	129	0.30	130	0.70	393	1.24	748	2.27	1340	4.71	2760	7.22	4440	13.70	8650
23	125	12	0.20	127	0.19	128	0.61	386	0.79	530	1.75	1140	4.26	2850	6.53	4490	11.80	7980
24	140	10	0.25	149	0.42	252	0.77	482	1.14	766	1.52	1120	3.07	2310	6.68	5290	9.62	7760
25	160	9	0.23	149	0.39	257	0.69	482	1.05	766	1.41	1140	2.85	2350	6.22	5420	8.62	7960
26	212	7	0.17	149	0.30	206	0.53	482	0.79	766	1.10	1200	2.27	2470	4.74	5580	6.80	7370
27	250	6	0.15	149	0.20	201	0.47	482	0.71	766	1.01	1220	2.03	2530	4.25	5580	6.43	8470

Note; For ratings at input speeds other than 1450 rev/min, contact your local Authorised Distributor

TRIPLE REDUCTION - RATINGS AT 1450 RPM

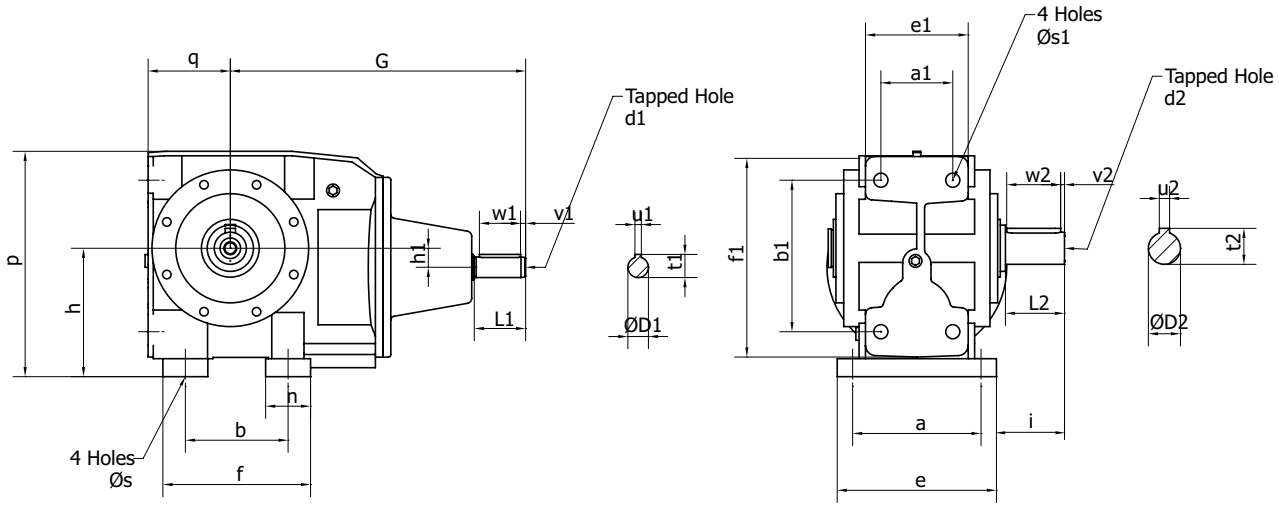
Ratio Code	Nominal Ratio	Output Speed Rev/Min	870		871		872		873		874	
			Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm	Input Power kW	Output Torque Nm
40	100	14.5	0.289	149	0.389	204	0.753	401	1.360	766	2.440	1340
41	118	12.3	0.254	149	0.340	203	0.659	399	1.200	766	2.110	1340
42	132	11.0	0.276	148	0.435	239	0.841	482	1.260	766	1.660	1100
43	150	9.7	0.260	149	0.416	245	0.784	482	1.120	766	1.510	1120
44	160	9.1	0.190	149	0.252	201	0.489	395	0.846	766	1.510	1340
45	180	8.1	0.163	149	0.216	200	0.418	393	0.781	766	1.420	1340
46	200	7.3	0.185	149	0.334	276	0.560	482	0.840	766	1.170	1190
47	225	6.4	0.163	149	0.296	278	0.493	482	0.745	766	1.040	1220
48	265	5.5	0.118	149	0.154	198	0.300	389	0.550	766	0.980	1340
49	280	5.2	0.107	149	0.139	197	0.270	388	0.490	766	0.897	1340
50	315	4.6	0.123	149	0.223	278	0.372	482	0.530	766	0.779	1270
51	360	4.0	0.106	149	0.192	278	0.320	482	0.490	766	0.731	1270
52	400	3.6	0.078	149	0.101	195	0.196	385	0.374	766	0.664	1340
53	450	3.2	0.069	149	0.089	195	0.172	384	0.331	766	0.594	1340
54	500	2.9	0.077	149	0.140	278	0.233	482	0.348	766	0.505	1270
55	560	2.6	0.069	149	0.127	278	0.211	482	0.311	766	0.463	1270
56	800	1.8	0.051	149	0.093	278	0.155	482	0.239	766	0.342	1260
57	900	1.6	0.045	149	0.082	278	0.137	482	0.212	766	0.306	1260

Note; For ratings at input speeds other than 1450 rev/min contact your local Distributor
For output speeds below 6 rev/min in sizes 875–877 consult your local Distributor

Series C Gearboxes : Non motorised selection

Foot Mounted Reducer - with output shaft

Double/Triple Reduction



Unit Size	a	b	c	e	f	h	h1	i	n	p	q	s	a1	b1	e1	f1	h1	s1	Output Shaft Dimensions						
																			D2	L2	t2	u2	v2	w2	d2
870	90	63	9	110	88	80	5.3	55	25	148	63	9	54	40	70	139	5.3	M8x1.25 x 15 deep	Ø20 k6	35	22.5	6	3	31	M6 x 1.0 x 16 deep
871	100	80	14	124	115	100	15	65	35	175	78	11	56	65	80	158	15	M10x1.5 x 20 deep	Ø25 k6	46	28.0	8	3	42	M10 x 1.5 x 22 deep
872	110	100	16	136	140	112	13	79	40	200	84	11	68	77	86	177	13	M10x1.5 x 18 deep	Ø30 k6	60	33.0	8	3	53	M10 x 1.5 x 22 deep
873	130	130	20	160	172	140	17	95	50	243	110	14	80	96	102	218	17	M12x1.75 x 20 deep	Ø35 k6	63	38.0	10	3	55	M12 x 1.75 x 25 deep
								130											Ø45 k6 *	98	48.5	14	5	80	M16 x 2.0 x 36 deep

*Optional heavy duty output shaft available on request

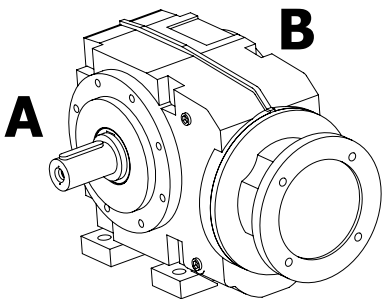
Input Shaft Details

Unit Size		D1	L1	u1	t1	v1	w1	d1	G	kg
870	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	220	11.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	276	15
871	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	230	15.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	285	18.5
872	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	245	18.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	301	21.5
873	Double	19 k6	40	6	21.5	4	32	M6x1.0 x 16mm	280	33
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	346	39

Recommended Fixing Bolts

Unit Size		Fasteners and Tightening Torque
870	Size	4 off M8 x 20mm long
	Nm	Tighten to - 25Nm
871	Size	4 off M10 x 30mm long
	Nm	Tighten to - 50Nm
872	Size	4 off M10 x 30mm long
	Nm	Tighten to - 50Nm
873	Size	4 off M12 x 40mm long
	Nm	Tighten to 85Nm

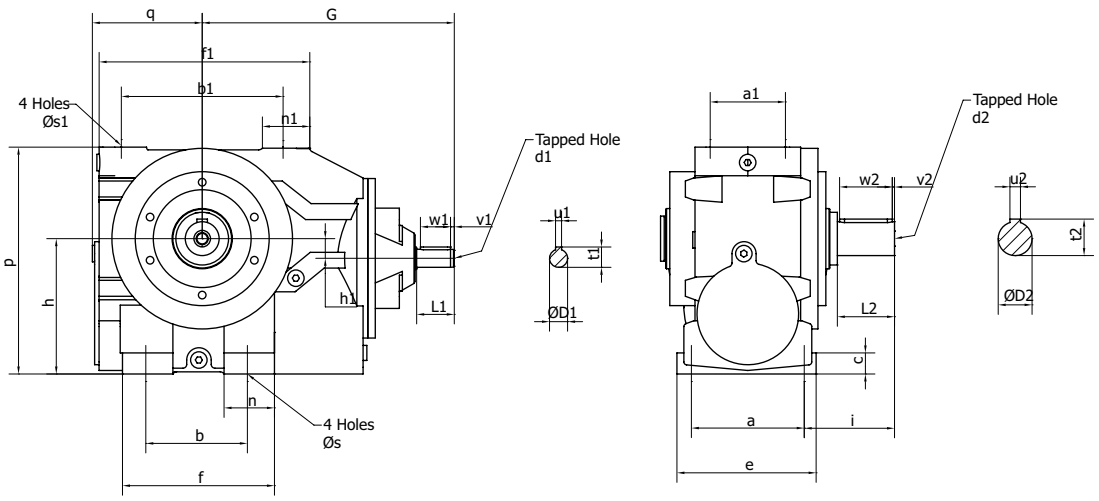
Handing



Series C Gearboxes : Non-motorised dimensions

Foot Mounted Reducer - with output shaft

Double/Triple Reduction



Unit Size	a	b	c	e	f	h	h1	i	n	p	q	s	a1	b1	e1	f1	h1	s1	SHAFT DIMENSIONS						
																			D2	L2	t2	u2	v2	w2	d2
874	150	135	28	185	202	180	26	120	67	302	143	18	100	215	280	26	63	M20x2.5 x 34 deep	Ø45 k6	76	48.5	14	3	70	M16 x 2.0 x 36 deep
875	200	180	35	250	260	225	28	155	80	375	168	22	120	250	326	28	71	M20x2.5 x 34 deep	Ø60 m6	120	64.0	18	3	110	M12 x 1.75 x 28 deep
876	250	235	40	305	320	280	40	170	85	457	195	26	135	290	380	40	85	M24x3.0 x 45 deep	Ø70 m6	135	74.5	20	3	125	M16 x 2.0 x 36 deep
877	300	310	45	360	420	335	65	216	110	565	235	26	150	345	460	65	107	M24x3.0 x 45 deep	Ø90 m6	170	95.0	25	3	160	M16 x 2.0 x 36 deep

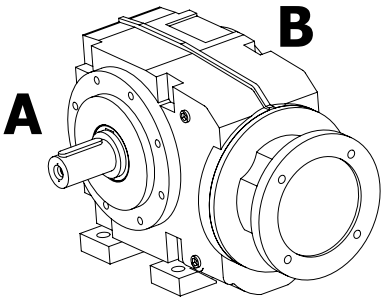
Input Shaft Details

Unit Size		D1	L1	u1	t1	v1	w1	d1	G	kg
874	Double	24 k6	50	8	27	5	40	M8x1.25 x 19mm	335	75
	Triple	19 k6	40	6	21.5	4	32	M6x1.0 x 16mm	417	82
875	Double	28 k6	60	8	31	5	50	M10x1.5 x 22mm	415	119
876	Double	38 k6	80	10	41	5	70	M12x1.75 x 28mm	495	183
877	Double	42 k6	110	12	45	10	70	M16x2.0 x 36mm	588	329

Recommended Fixing Bolts

Unit Size		Fasteners and Tightening Torque
874	Size	4 off M16 x 50mm long
	Nm	Tighten to 200Nm
875	Size	4 off M20 x 65mm long
	Nm	Tighten to 350Nm
876	Size	4 off M24 x 75mm long
	Nm	Tighten to 610Nm
877	Size	4 off M24 x 80mm long
	Nm	Tighten to 610Nm

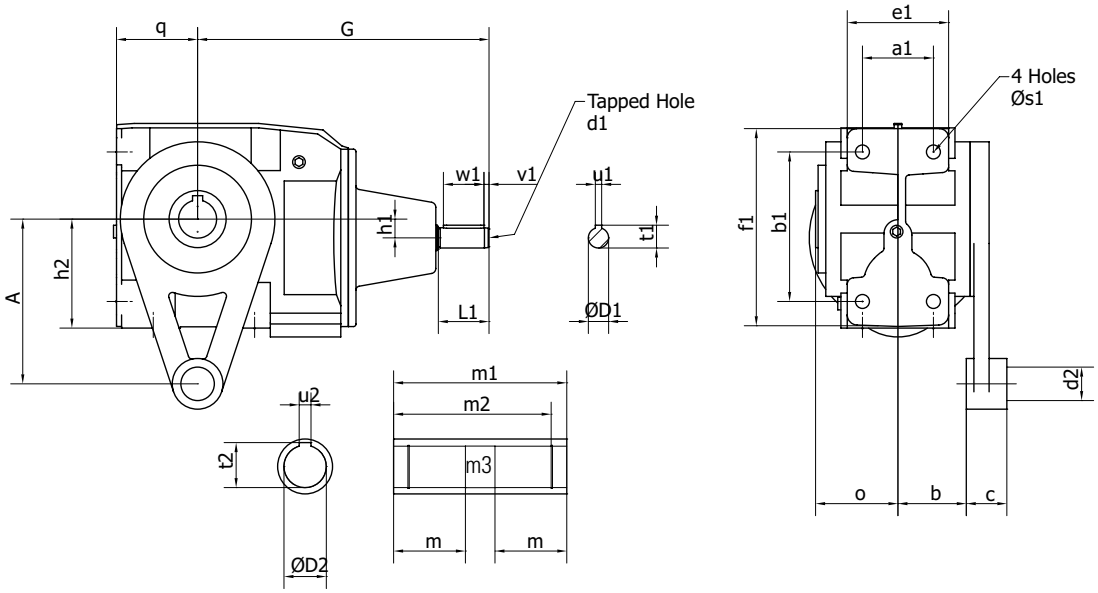
Handing



Series C Gearboxes : Non motorised selection

Shaft Mounted Reducer - with torque arm

Double/Triple Reduction



Unit Size	A	b	c	d2	h2	o	q	a1	b1	e1	f1	h1	s1	Shaft Dimensions						
														D2	m1	t2	u2	m	m2	m3	Shaft Fixing Bolt
870	110	47	36	10.3	79.5	62	54	54	40	70	139	5.3	M8x1.25 x 15 deep	Ø20 H7	124	22.8	6	52	104	20.2	M6 x 1.0 x 40mm long
871	130	52	36	10.3	93	65	64	56	65	80	158	15	M10x1.5 x 20 deep	Ø25 H7 *	130	28.3	8	54	122	30.2	M10 x 1.5 x 50mm long
														Ø30 H7	130	33.3	8	54	122	30.2	M10 x 1.5 x 50mm long
872	160	52	36	10.3	112	70	68	68	77	86	177	13	M10x1.5 x 18 deep	Ø30 H7 *	140	33.3	8	56	127	35.3	M10 x 1.5 x 50mm long
														Ø35 H7	140	38.3	10	56	127	35.3	M12 x 1.75 x 55mm long
873	200	71.5	44	16.5	139.5	90	90	80	96	102	218	17	M12x1.75 x 20 deep	Ø40 H7 *	180	43.3	12	70	156	45.3	M16 x 2.0 x 70mm long
														Ø45 H7	180	48.3	14	70	156	45.3	M16 x 2.0 x 70mm long

* Alternate bore option

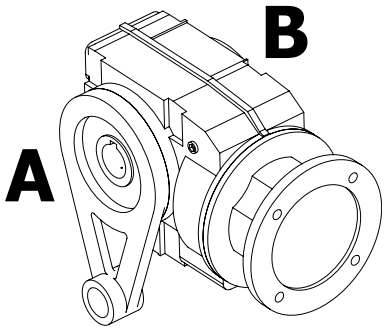
Input Shaft Details

Unit Size		D1	L1	u1	t1	v1	w1	d1	G	kg
870	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	220	11.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	276	15
871	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	230	15.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	285	18.5
872	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	245	18.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	301	21.5
873	Double	19 k6	40	6	21.5	4	32	M6x1.0 x 16mm	280	33
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	346	39

Torque Arms

Unit Size		
870	Part Number	870A9600
	Available Positions	90° increments
871	Part Number	871A9600
	Available Positions	45° increments
872	Part Number	872A9600
	Available Positions	45° increments
873	Part Number	873A9600
	Available Positions	45° increments

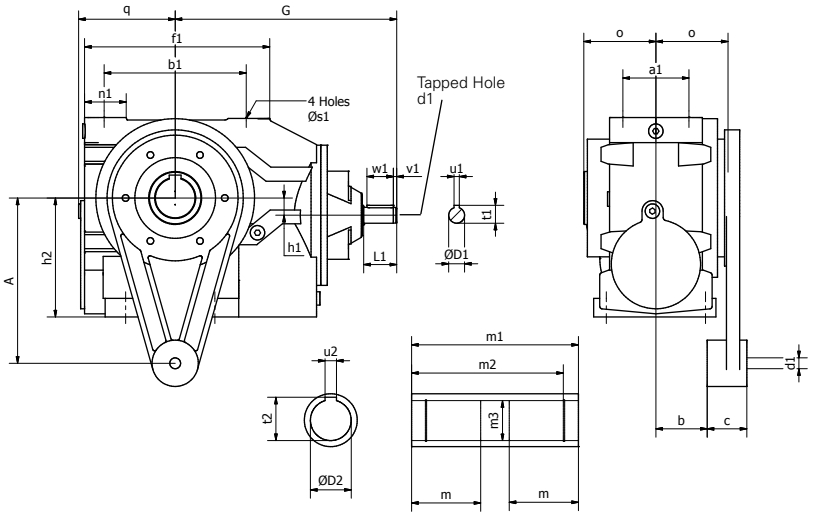
Handing



Series C Gearboxes : Non-motorised dimensions

Shaft Mounted Reducer - with torque arm

Double/Triple Reduction



Unit Size	A	b	c	d1	h2	o	q	a1	b1	f1	h1	n1	s1	Shaft Dimensions							
														D2	m1	t2	u2	m	m2	m3	Shaft Fixing Bolt
874	250	77.5	60	16.4	180	109	143	100	215	280	26	63	M20x2.5 x 34 deep	Ø50 H7 *	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
														Ø60 H7	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
875	310	85.5	60	16.4	225	125	168	120	250	326	28	71	M20x2.5 x 34 deep	Ø60 H7 *	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
														Ø70 H7	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
876	380	98	80	25	280	150	195	135	290	380	40	85	M24x3.0 x 45 deep	Ø70 H7 *	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
														Ø90 H7	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
877	430	137	80	25	335	175	235	150	345	460	65	107	M24x3.0 x 45 deep	Ø80 H7 *	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep
														Ø100 H7	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep

* Alternate bore option

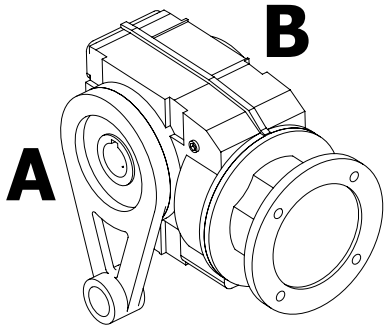
Input Shaft Details

Unit Size		D1	L1	u1	t1	v1	w1	d1	G	kg
874	Double	24 k6	50	8	27	5	40	M8x1.25 x 19mm	335	75
	Triple	19 k6	40	6	21.5	4	32	M6x1.0 x 16mm	417	82
875	Double	28 k6	60	8	31	5	50	M10x1.5 x 22mm	415	119
876	Double	38 k6	80	10	41	5	70	M12x1.75 x 28mm	495	183
877	Double	42 k6	110	12	45	10	70	M16x2.0 x 36mm	588	329

Torque Arms

Unit Size		Part Number
874	Part Number	874A9600
	Available Positions	60° increments
875	Part Number	875A9600
	Available Positions	45° increments
876	Part Number	876A9600
	Available Positions	60° increments
877	Part Number	877A9600
	Available Positions	36° increments

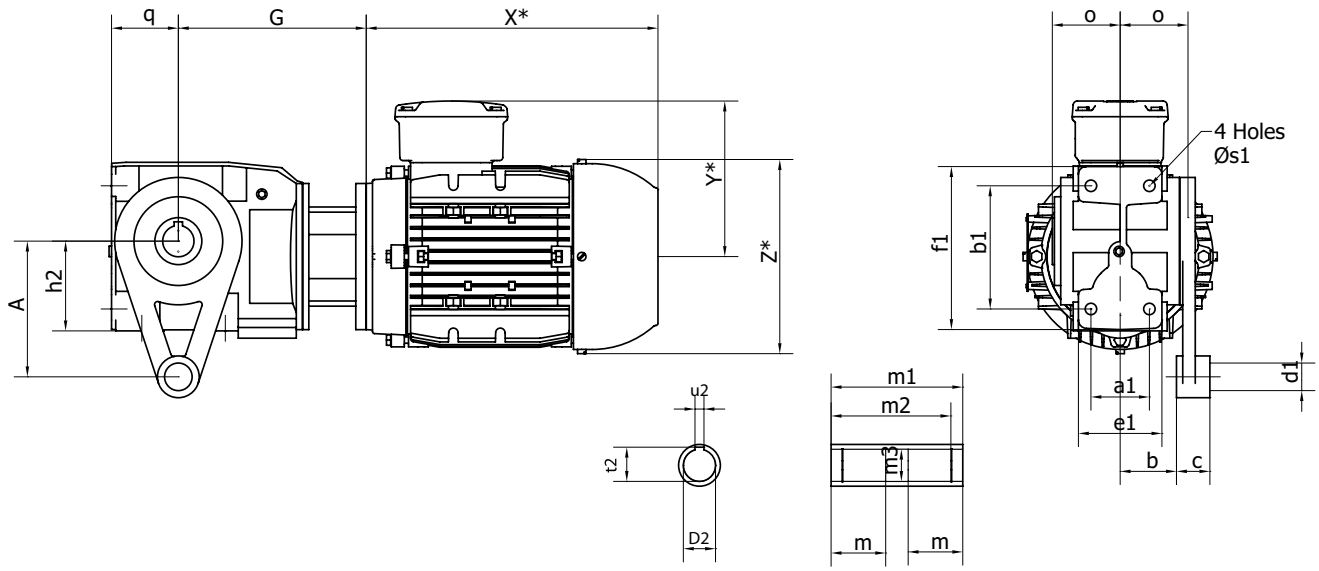
Handing



Series C Gearboxes : Non motorised selection

Shaft Mounted Reducer - with flange

Double/Triple Reduction



Unit Size	Flange Dimensions						h2	h1	q	o	i	Hollow Bore							
	Øa	Øb	c	Øe	n	Øs						D2	m1	t2	u2	m	m2	m3	Shaft Fixing Bolt
870	120 **	80 j6	8	100	4	6.6	70.5	5.3	54	62	75	Ø20 H7	124	22.8	6	52	104	20.2	M6 x 1.0 x 40mm long
	160	110 j6	10	130	4	9													
871	160	110 j6	10	130	4	9	86	15	64	65	86	Ø25 H7 *	130	28.3	8	54	122	30.2	M10 x 1.5 x 50mm long
												Ø30 H7	130	33.3	8	54	122	30.2	M10 x 1.5 x 50mm long
872	200	130 j6	12	165	4	11	96	13	68	70	107	Ø30 H7 *	140	33.3	8	56	127	35.3	M10 x 1.5 x 50mm long
												Ø35 H7	140	38.3	10	56	127	35.3	M12 x 1.75 x 55mm long
873	200	130 j6	12	165	4	11	119.5	17	90	90	120	Ø40 H7 *	180	43.3	12	70	156	45.3	M16 x 2.0 x 70mm long
												Ø45 H7	180	48.3	14	70	156	45.3	M16 x 2.0 x 70mm long

* Alternate bore option
** Alternate flange option

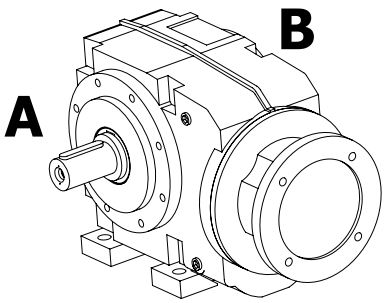
Input Shaft Details

Unit Size		D1	L1	u1	t1	v1	w1	d1	G	kg
870	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	220	11.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	276	15
871	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	230	15.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	285	18.5
872	Double	16 k6	40	5	18	4	32	M5x0.8 x 12mm	245	18.5
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	301	21.5
873	Double	19 k6	40	6	21.5	4	32	M6x1.0 x 16mm	280	33
	Triple	16 k6	40	5	18	4	32	M5x0.8 x 12mm	346	39

Output Flange/Shaft

Unit Size		Part No
870 **	Output Flange	870A9990
	Extended Shaft	870A9790
870	Part Number	870A9900
	Fixing Bolts	870A9790
871	Part Number	871A9900
	Fixing Bolts	871A9790
872	Part Number	872A9900
	Fixing Bolts	872A9790
873	Part Number	873A9900
	Fixing Bolts	873A9790

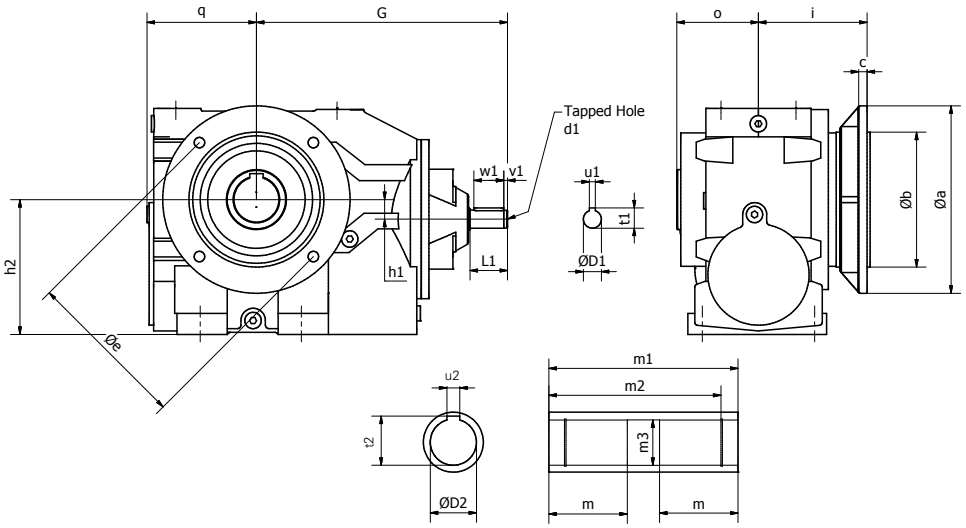
Handing



Series C Gearboxes : Non-motorised dimensions

Shaft Mounted Reducer - with flange

Double/Triple Reduction



Unit Size	Flange Dimensions						h2	h1	q	o	i	Shaft Dimensions							
	Øa	Øb	c	Øe	n	Øs						D2	m1	t2	u2	m	m2	m3	Shaft Fixing Bolt
874	250	180 j6	12	215	4	14	180	26	143	109	145	Ø50 H7 *	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
												Ø60 H7	76	48.5	14	3	70	70	M16 x 2.0 x 36 deep
875	350	250 h6	18	300	4	18	225	28	168	125	170	Ø60 H7 *	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
												Ø70 H7	120	64.0	18	3	110	110	M12 x 1.75 x 28 deep
876	450	350 h6	20	400	8	18	280	40	195	150	200	Ø70 H7 *	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
												Ø90 H7	135	74.5	20	3	125	125	M16 x 2.0 x 36 deep
877	450	350 h6	22	400	8	18	335	65	235	175	232	Ø80 H7 *	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep
												Ø100 H7	170	95.0	25	3	160	160	M16 x 2.0 x 36 deep

* Alternate bore option

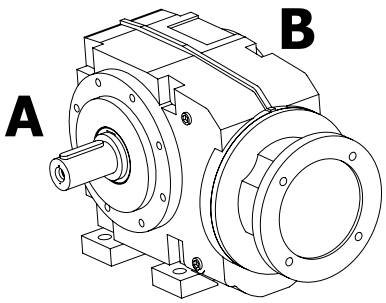
Input Shaft Details

Unit Size		D1	L1	u1	t1	v1	w1	d1	G	kg
874	Double	24 k6	50	8	27	5	40	M8x1.25 x 19mm	335	75
	Triple	19 k6	40	6	21.5	4	32	M6x1.0 x 16mm	417	82
875	Double	28 k6	60	8	31	5	50	M10x1.5 x 22mm	415	119
876	Double	38 k6	80	10	41	5	70	M12x1.75 x 28mm	495	183
877	Double	42 k6	110	12	45	10	70	M16x2.0 x 36mm	588	329

Output Flange/Shaft

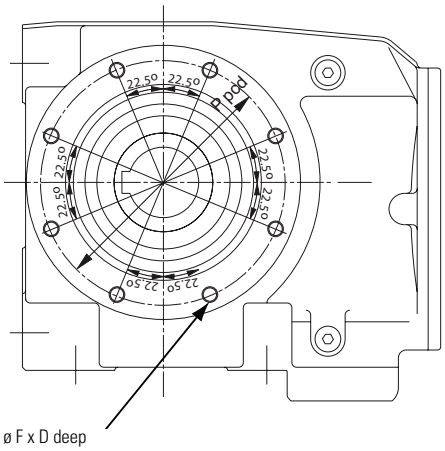
Unit Size		Part Number
874	Output Flange	874A9900
	Extended Shaft	874A9790
875	Output Flnage	875A9900
	Extended Shaft	875A9790
876	Output Flange	876A9900
	Extended Shaft	876A9790
877	Output Flange	877A9900
	Extended Shaft	877A9790

Handing



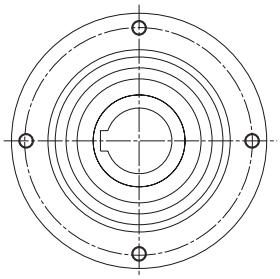
Series C Gearboxes : Dimensions (B14) Flange

871, 872, 873 & 875
Eight Hole Pattern

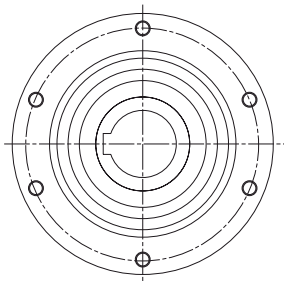


N Holes x ø F x D deep

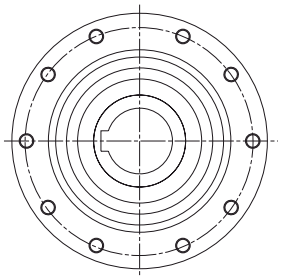
870
Four Hole Pattern



874 & 876
Six Hole Pattern



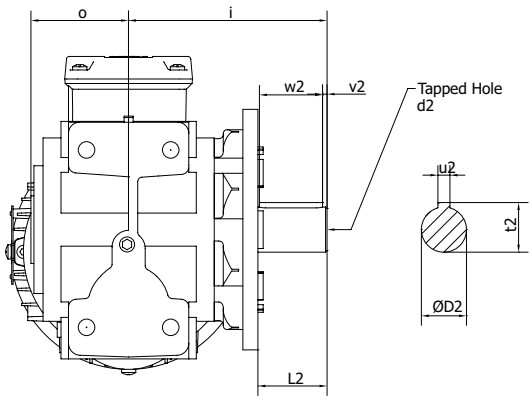
877
Ten Hole Pattern



Size	P pcd	F Thread Diameter	N No. of Holes	D Deep
870	90	M8 x 1.25	4	22
871	107	M8 x 1.25	8	22
872	130	M8 x 1.25	8	22
873	155	M10 x 1.5	8	27
874	150	M12 x 1.75	6	22
875	195	M12 x 1.75	8	21
876	230	M16 x 2.0	6	27
877	280	M16 x 2.0	10	27

Extended Shaft Option (for flange mounted units)

Unit Size	o	i	D2	L2	t2	u2	v2	w2	d2	Extended Shaft	Output Flange
870	62	75	Ø20 k6	35	22.5	6	3	31	M6 x 1.0 x 16 deep	870A9900	870A9790
871	65	86	Ø25 k6	46	28.0	8	3	42	M10 x 1.5 x 22 deep	871A9900	871A9790
872	70	107	Ø30 k6	60	33.0	8	3	53	M10 x 1.5 x 22 deep	872A9900	872A9790
873	90	120	Ø35 k6	63	38.0	10	3	55	M12 x 1.75 x 25 deep	873A9900	873A9790
874	109	145	Ø45 k6	76	48.5	14	3	70	M16 x 2.0 x 36 deep	874A9900	874A9790
875	125	170	Ø60 m6	120	64.0	18	3	110	M12 x 1.75 x 28 deep	875A9900	875A9790
876	150	200	Ø70 m6	135	74.5	20	3	125	M16 x 2.0 x 36 deep	876A9900	876A9790
877	175	232	Ø90 m6	170	95.0	25	3	160	M16 x 2.0 x 36 deep	877A9900	877A9790



Series C Gearboxes : Exact Ratios

DOUBLE REDUCTION

Code	870	871	872	873	874	875	876	877	Final Reduction Worm Ratio
01	8.59	8.59	8.31	8.23	7.90	7.77	7.97	7.95	10 : 1
02	11.61	11.61	11.66	11.57	10.94	11.01	10.98	11.11	10 : 1
03	13.20	13.20	12.85	12.97	12.29	12.24	12.30	12.08	10 : 1
04	14.95	14.95	14.59	14.56	13.52	13.61	13.81	13.72	10 : 1
05	16.36	16.36	16.09	15.93	15.80	15.54	16.68	16.63	20 : 1
06	19.13	19.13	18.53	18.49	17.66	17.60	17.79	17.87	10 : 1
07	20.61	20.61	21.05	20.96	20.07	19.76	19.88	19.29	10 : 1
08	22.11	22.11	22.56	22.40	21.89	22.03	22.96	23.23	20 : 1
09	25.14	25.14	24.86	25.11	24.59	24.47	25.73	25.27	20 : 1
10	28.48	28.48	28.24	28.18	27.03	27.22	28.89	28.70	20 : 1
11	33.71	33.71	32.55	33.48	30.81	31.78	31.43	31.85	10 : 1
12	36.43	36.43	35.86	35.79	35.31	35.20	37.22	37.38	20 : 1
13	39.26	39.26	40.74	40.57	40.15	39.51	41.59	40.36	20 : 1
14	45.50	45.50	46.84	47.32	44.13	43.64	44.55	43.65	10 : 1
15	53.31	53.31	50.93	50.52	49.90	49.26	49.49	48.51	10 : 1
16	56.19	56.19	55.45	55.71	53.63	54.60	57.66	58.85	20 : 1
17	64.21	64.21	63.00	64.80	61.62	63.56	65.74	66.63	20 : 1
18	74.55	74.55	73.37	73.92	69.00	69.64	69.91	69.18	10 : 1
19	82.83	82.83	82.67	80.94	75.56	76.50	77.18	79.71	10 : 1
20	86.67	86.67	90.67	91.58	88.26	87.29	93.18	91.32	20 : 1
21	101.50	101.50	98.57	97.78	99.79	98.53	103.50	101.50	20 : 1
22	114.30	114.30	109.10	110.60	104.30	102.40	106.20	107.80	10 : 1
23	129.90	129.90	124.00	124.00	115.90	117.90	119.40	115.80	10 : 1
24	142.00	142.00	142.00	143.10	138.00	139.30	146.20	144.70	20 : 1
25	157.80	157.80	160.00	156.70	151.10	153.00	161.40	166.70	20 : 1
26	217.80	217.80	211.10	214.00	208.60	204.80	222.10	225.50	20 : 1
27	247.50	247.50	240.00	240.00	231.80	235.80	249.70	242.30	20 : 1

TRIPLE REDUCTION

Code	870	871	872	873	874	Final Reduction Worm Ratio
40	105.4	105.4	103.9	103.9	97.3	10:1
41	120.4	120.4	118.7	118.0	113.2	10:1
42	130.1	130.1	130.4	130.0	125.0	20:1
43	140.2	140.2	140.5	147.7	141.7	20:1
44	162.5	162.5	160.3	169.8	160.0	10:1
45	190.4	190.4	187.8	184.6	170.8	10:1
46	200.7	200.7	201.1	201.0	194.7	20:1
47	229.3	229.3	229.8	228.4	226.4	20:1
48	266.3	266.3	262.6	266.0	249.9	10:1
49	295.8	295.8	291.8	299.7	273.7	10:1
50	309.5	309.5	310.2	328.7	320.0	20:1
51	362.6	362.6	363.4	357.3	341.6	20:1
52	408.3	408.3	402.7	395.4	373.8	10:1
53	464.1	464.1	457.7	449.5	419.3	10:1
54	507.1	507.1	508.2	514.8	499.9	20:1
55	563.5	563.5	564.7	580.0	547.4	20:1
56	777.8	777.8	779.4	765.3	747.7	20:1
57	883.9	883.9	885.8	870.0	838.5	20:1

OPTION CODES

Part Description	Unit Size							
	870	871	872	873	874	875	876	877
Single Ext Output Shaft (std)	870A9700	871A9700	872A9700	873A9700	874A9700	875A9700	876A9700	877A9700
Double Ext Output Shaft (std)	870A9800	871A9800	872A9800	873A9800	874A9800	875A9800	876A9800	877A9800
Single Ext Output Shaft (Flange mtd)	870A9750	871A9750	872A9750	873A9750	874A9750	875A9750	876A9750	877A9750
Single Ext Output Shaft (Heavy Duty)	NA	NA	NA	873A9701	NA	NA	NA	NA
Torque Arm	870A9600	871A9600	872A9600	873A9600	874A9600	875A9600	876A9600	877A9600
Output Flange (std)	870A9900	871A9900	872A9900	873A9900	874A9900	875A9900	876A9900	877A9900
Output Flange (reduced Ø)	870A9990	NA	NA	NA	NA	NA	NA	NA
Feet	870A9500	871A9500	872A9500	873A9500	Incl	Incl	Incl	Incl
Protective Output Cover	870A9400	871A9400	872A9400	873A9400	874A9400	875A9400	876A9400	877A9400

Series C Gearboxes : Overhgung Load Capacities and Ordering Instructions

OVERHUNG LOAD CAPACITIES

Units are fitted with output bearings of ample proportions to cater for the radial and thrust loads imposed by the worm gear, leaving sufficient capacity for taking overhung loads.

The calculated overhung load should be compared with the value in the selection tables.

These values may be exceeded at lower input speeds or if limited bearing lives are acceptable. In cases where higher overhung load capacities are necessary consult your Authorised Distributor, quoting details of power, speed, direction of gearbox rotation, angle of application of load, distance of load application from gearbox and acceptable bearing life.

SERIES C

Unit Size	A mm
870	17.5
871	23.0
872	30.0
873	31.5
874	38.0
875	60.0
876	67.5
877	85.0

To determine the overhung load when a sprocket, gear or 'V' pulley is fitted to the output shaft, one of the following formulae may be used in the absence of accurate information.

(1) Calculation on a basis of Torque

$$\text{Overhung load (N)} = \frac{T \times 1000 \times K}{r}$$

(2) Calculation on a basis of Power

$$\text{Overhung load (N)} = \frac{kW \times 9550 \times 1000 \times K}{n \times r}$$

Where:

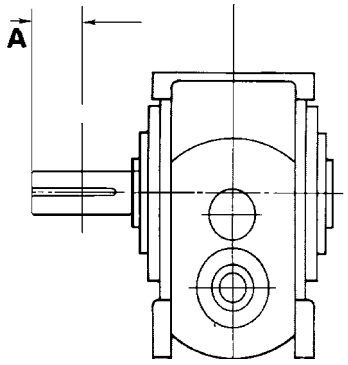
M_2 = Absorbed torque at shaft in Nm.
P_2 = Absorbed power at shaft (kW).
r = Pitch radius of sprocket, gear or 'V' pulley in mm.
n_2 = Rev/min output shaft.
K = Application factor -
1.00 for a sprocket
1.25 for a gear or timing pulley
1.50 for a 'V' pulley

Overhung loads may be reduced by one of the following methods:

(1) Increase the diameter of the sprocket, gear or pulley within reasonable limits.

(2) Mount the sprocket, gear or pulley on a separate shaft, supported with bearings and couple to the output shaft by means of a Fenner shaft coupling.

(3) Use a special extended output shaft and support the free end with an outrigger bearing.



ORDERING INSTRUCTIONS

All Series C motorised worm gear units fitted with a standard electric motor are identified by an eight digit code taken from the selection tables.

If an alternative motor type is required a ninth digit is added to the standard code.

FIRST THREE DIGITS:
Gearmotor type and size

FOURTH DIGIT:
Type of assembly required.

A: Geared motor (standard bore)
Z: Geared motor (alternate bore)
D: Reducer (standard bore)
Y: Reducer (alternate bore)
G: Motor ready (standard bore)
X: Motor ready (alternate bore)

FIFTH AND SIXTH DIGIT:
Ratio Code. Exact ratios can be found on page 243.

SEVENTH/EIGHTH DIGIT:
Type of drive code

1. Motorised units - use complete code from selection tables.
2. Input Reducer assembly - use 00.
3. Motor ready units are supplied to fit standard IEC motor insert frame code from table opposite.

NINTH DIGIT:
Type of motor variant

Use eight digit code obtained from selection tables for required motor power and speed and then add the relevant letter code from table opposite of the motor variant required.

Code	Additional Feature
A	Anti-condensation heaters fitted
B	Backstop Fitted
E	Fitted with encoder
M	Brake motor
N	Brake motor with Hand Release
Q	Refer to Original Quote - Special
S	Single Phase motor
T	Fitted with Thermistors
X	Fitted with Variator
Z	Fitted with Force Vent unit

SUFFIX CODES

Code	Additional Feature
/TA	with torque arm
/SOS	with single output shaft
/DOS	with double output shaft
/FT	with bolt on feet

ELECTRIC MOTOR VARIANTS

Fenner gearboxes can be fitted with all standard IEC frame motors. IE2 high efficiency motors are fitted as standard, IE3 premium efficiency motors can also be fitted if required.

Fenner also offer a range of brake motors and options, contact your local Authorised Distributor for more information.

There are a range of modular fitted options such as variators, clutch brakes and backstops available as options.

Code	Frame	Flange
63C	63	B14
63D	63	B5
71C	71	B14
71D	71	B5
80C	80	B14
80D	80	B5
90C	90	B14
90D	90	B5
10C	100	B14
10D	100	B5
11C	112	B14
11D	112	B5
13C	132	B14
13D	132	B5
16D	160	B5
18D	180	B5
20D	200	B5
22D	225	B5
25D	250	B5

Series C Gearboxes : Installation and Maintenance

Satisfactory performance depends on proper installation, lubrication and maintenance. All instructions given in the installation leaflet must be followed carefully.

SHAFT MOUNTING

Ensure that the shaft on to which the gear unit is to be mounted and the gear unit bore are clean and free from burrs.

Liberally smear the shaft and bore with lubricants to aid assembly and prevent fretting corrosion. Slide the unit on to the driven shaft, fit side fitting key. DO NOT USE TAPER OR TOP FITTING KEY.

LUBRICANT TYPE TEMPERATURE RANGE

ISO Viscosity	Ambient Temperature ºC		
	-30º to 20ºC	0ºC to 35ºC	20ºC to 50ºC
Synthetic Oil 1	220	320	460
Synthetic Oil 2	220	220	320

Synthetic Oil 1 = Polyglycol based
Synthetic Oil 2 = Polyalphaolefin based.
We recommend the use of a Polyglycol synthetic oil - see the note below regarding power ratings.

FOOT MOUNTING

Mount the unit securely to a rigid structure. Fit the output extension shaft as required. Use flexible couplings such as Fenaflex for shaft to shaft connections and ensure that shaft misalignment is within the coupling's capacity. When a pulley or sprocket is fitted to either shaft, mount it as close as possible to the gearcase.

When fitting or removing drive components do not hammer on shaft as this will damage the bearings, Fenner Taper Lock bushes permit easy fixing and dismantling without undue force.

LUBRICATION

Sizes 870 to 873 are pre-filled for mounting position B3 with synthetic lubricant. Other mounting positions must be specified on order.
Sizes 874 to 877 are supplied without oil. Before running they should be filled with an appropriate amount of the correct lubricant shown in the table, dependent on the mounting position, see below.
Oil capacities are only approximate and units should be filled until oil escapes from the level plug hole.

WARNING: Do not overfill as excess lubricant may cause overheating and leakage.

OIL CHANGES

Sizes 870 and 871 are lubricated for life except when the units are required to work in an explosive atmosphere. (94/9/EC Atex 100a Group II category 2 zones 1 &21 & category 3 zones 2 & 22). See separate leaflet for recommendations. All other sizes will require an oil change depending on the unit operating temperature. Intial fill of oil should be changed in a new gear unit after 1000 hours operation or one year or half the life in the table below whichever is the soonest.

Unit Op Temp ºC	Renewal Period (Hours)	
	Mineral Oil	Synthetic Oil
65 or less	17000 or 3 Yrs	26000 or 3 Yrs
70	12000 or 3 Yrs	26000 or 3 Yrs
75	8500 or 3 Yrs	22000 or 3 Yrs
80	6000 or 2 Yrs	15000 or 3 Yrs
85	4200 or 17 Mths	10500 or 3 Yrs
90	3000 or 12 Mths	7500 or 2.5 Yrs
95	2100 or 8 Mths	6000 or 2 Yrs
100	1500 or 6 Mths	4500 or 18 Mths

BREATHERS/MOUNTING POSITIONS

Sizes 870 to 873 are supplied for operation without breathers.

Sizes 874 to 877 are supplied for operation with breather but are despatched without oil. It is essential that when the unit is in its operating position the relevant blanking plug is removed and replaced by the breather plug (supplied) in the position indicated on the installation leaflet.

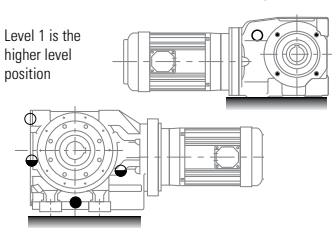
LUBRICANT CAPACITY (LITRES)

Unit Size	Double Reduction								Triple Reduction							
	B3		B8		V5/V6	B7	B6		B3		B8		V5 V6	B7	B6	
	Level 1	Level 2	Level 1	Level 2	All	All	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2	All	All	Level 1	Level 2
870	0.3	-	0.7	-	0.5	0.6	0.7	-	0.4	-	1.2	-	0.8	1.0	1.2	-
871	0.4	-	1.0	-	0.7	0.9	1.0	-	0.5	-	1.5	-	0.9	1.3	1.5	-
872	0.7	-	1.4	-	1.0	1.4	1.4	-	0.9	-	2.1	-	1.4	2.0	1.9	-
873	1.5	-	3.1	-	2.2/2.3	3.0	3.2	-	2.1	-	4.0	-	2.5	4.6	4.0	-
874	4.5	3.0	5.1	3.0	3.7/3.5	5.6	7.4	5.1	4.8	3.8	5.9	3.6	3.7	6.6	9.2	6.9
875	7.1	5.9	9.5	4.8	3.7/6.2	9.6	12	9.5	-	-	-	-	-	-	-	-
876	17	11	17	8.3	12	18	25	17	-	-	-	-	-	-	-	-
877	28	17	26	14	21	31	42	28	-	-	-	-	-	-	-	-

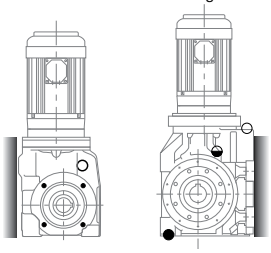
*Level 1 used for output speeds below 1000rpm, Level 2 used for output speeds above 1000rpm

MOUNTING POSITIONS

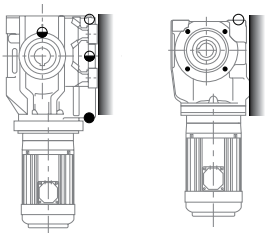
Standard Floor Mounting B3



Left Hand Wall Mounting B7†



Right Hand Wall Mounting B6†*

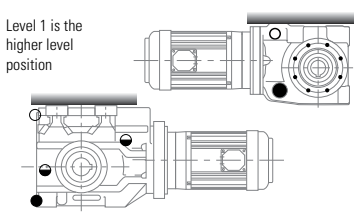


† Gear units for use in mounting positions B6 & B7 should only be selected with overall ratios greater than or equal to those shown in the table below.

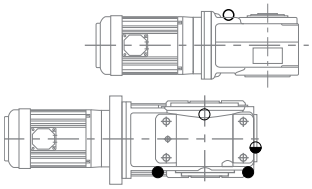
* Mounting position B6 is not recommended for geared motors. Consult your local authorised distributor.

Unit Size	Input Speed (rpm)			
	1000	1500	1800	>1800
870-875	All	All	All	Consult you local distributor
876	18:1	18:1	25:1	
877	18:1	40:1	63:1	

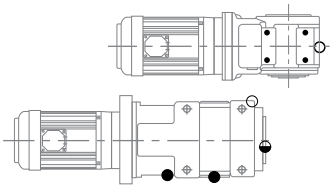
Standard Ceiling Mounting B8



Wall Mounting Shaft Down (V5)



Wall Mounting Shaft Up (V6)



Plug positions apply for sizes 874 and larger.

○ Ventilator/Filling Position
◒ Level Position
● Drain Position

Series C Gearboxes : Installation and Maintenance