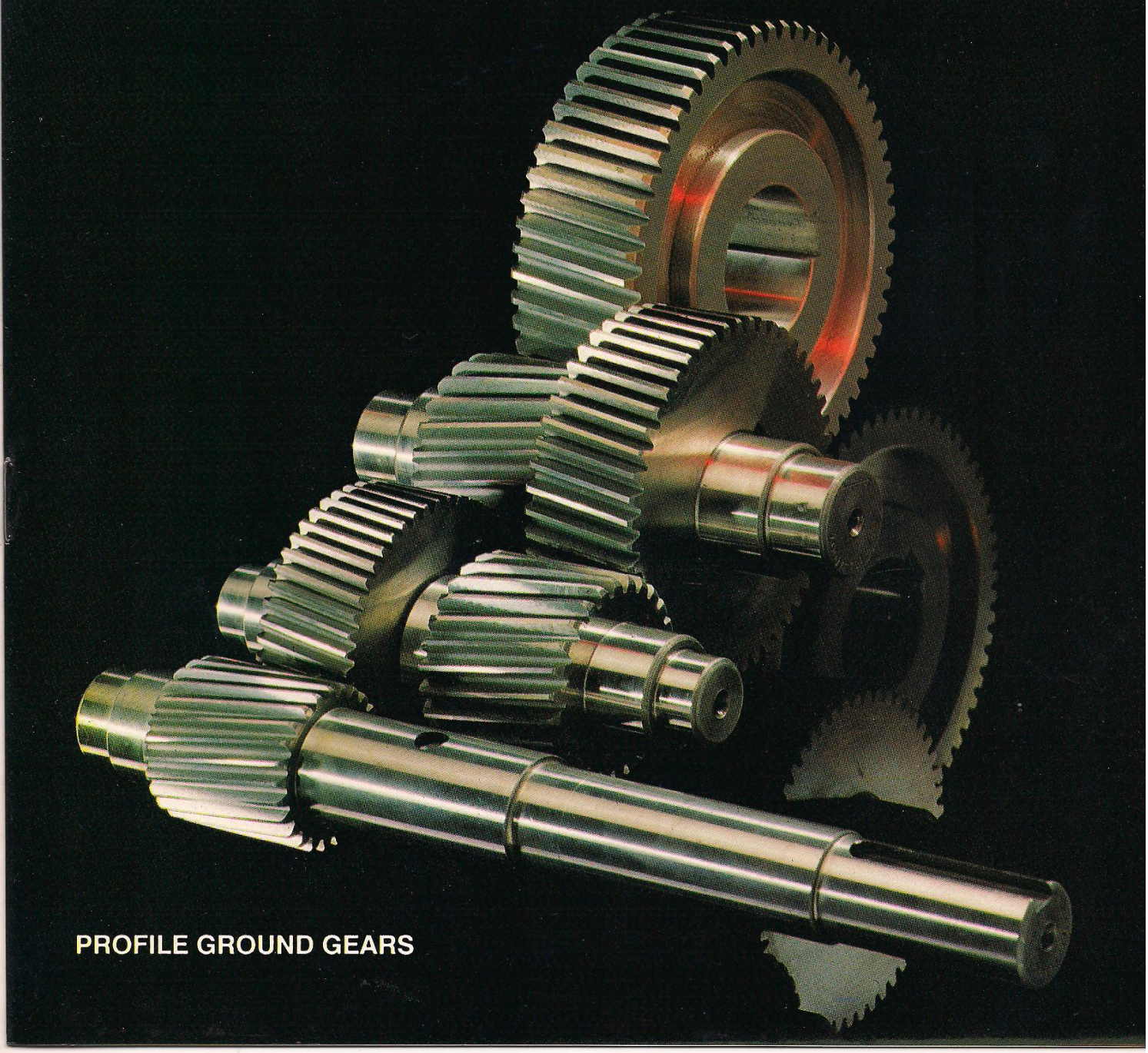
Crescent

CRANE DUTY GEAR BOXES



PROFILE GROUND GEARS

HOUSINGS

Housings are casted and stress relieved strictly according to ISI-210 so as to operate at maximum load.

GEARS AND PINIONS

The Gears and Pinions are made of hard wearing special steel of graded strength and are generated with highest accuracy to operate under severe conditions

BEARINGS

Antifriction bearings are used to ensure long service life,high efficiency, correct centre distance and proper shaft alignment.

SHAFTS

Shafts are made of heat-treated alloys and are finished within precised tolerances by grinding.

COOLING AND LUBRICATION

Sufficient amount of oil is present to ensure cool operation. Splash lubrication is provided for the smooth and quiet operation. Cooling coils are provided in the lower part of the housing for more efficient and effective cooling for higher capacity.

EFFICIENCY

High efficiencies of the following order are easily attainable.

a) Single reduction units ----- 98%
b) Double reduction units ----- 96%
c) Triple reduction units ----- 94%

REDUCTION RATIOS

Gear Boxes of the following reduction ratios are manufactured.

a) Single reduction unit ----- 1.8:1 to 8:1
b) Double reduction unit ----- 8:1 to 48:1
c) Triple reduction unit ----- 10:1 to 150:1
d) Ratios not shown in the catalogue can also be provided on special request.

SPECIAL FEATURES

The gear units are specially designed for heavy duty EOT cranes in accordance with IS:3177-65

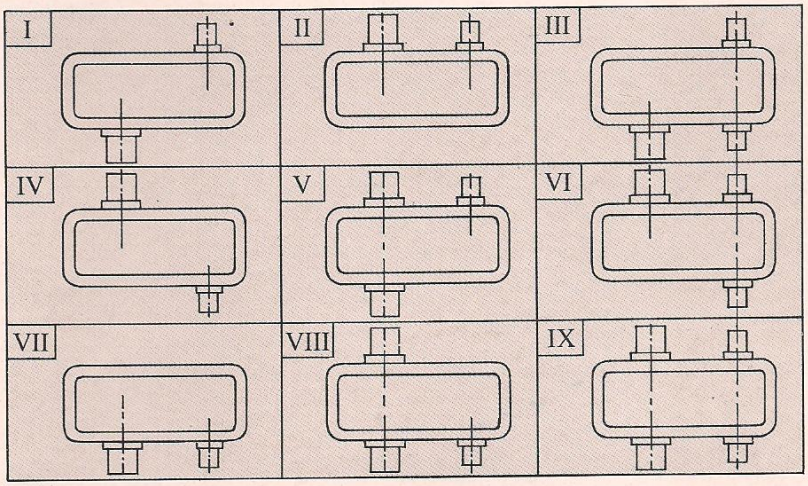
- Gear teeth are cut in the metric module system in accordance with relevant standard specifications.
- To ensure correct tooth contact parallelism of bearing, bores are maintained with precise tolerance.
- Gear teeth are precision cut to involute shape, designed to give maximum tooth contact.
- Antifriction bearings are used for maintaining the precised tolerance required between the Gear centres.
- Positive seals prevent oil leakage at both high speed and low speed shafts.
- High eff.of over 98% per stage of reduction can be achieved when loaded to full capacity of the units.
- The gear units are available with various assembly arrangements such as: **(Type I, II, III, IV, V, VI, VII, VIII, IX)**

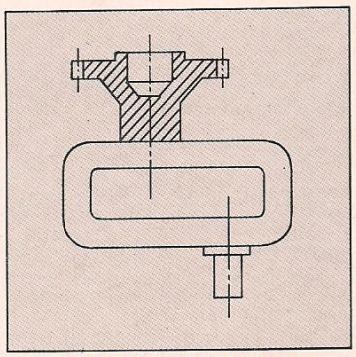
DUTY FACTOR AND LIFE OF MECHANISM

Mechanism Class	Duty Factor		Average Life	
	Strength	Wear	Running Time Per Day	Total Life
			Hours	Hours Not less than
1	1.0	0.4	0.5	2500
2	1.2	0.5	1.5	9000
3	1.4	0.6	3	20,000
4	1.6	0.7	6	40,000

Note - 'Running time per day' and 'total life' given in the table relate to the mechanism class only.

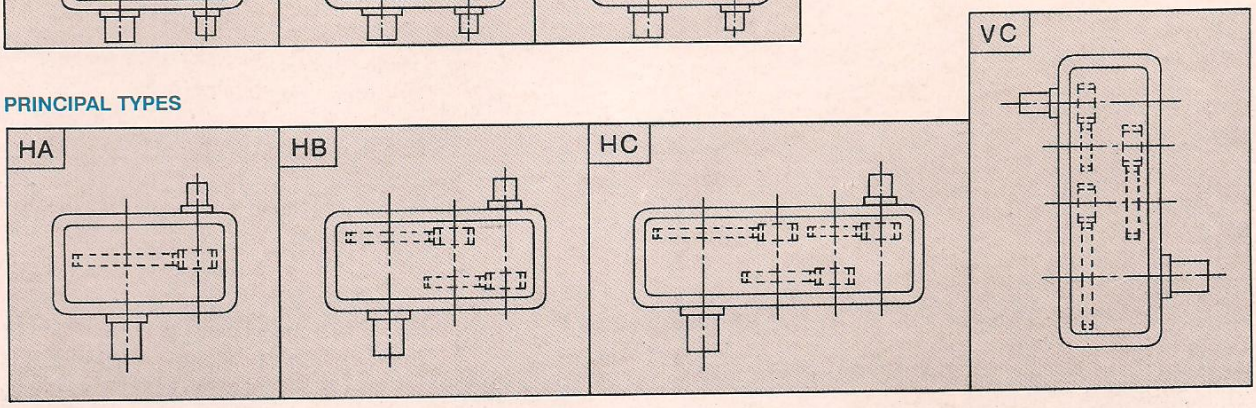
ARRANGEMENTS





OUTPUT SHAFT WITH INTEGRAL TOOTHED MALE CLUTCH

PRINCIPAL TYPES



TYPE OF OIL

The lubricating oil used should be straight mineral oil or Extreme Pressure oil. Mineral oil should be within the recomended viscosity range and no grit or abrasives should be present.

The first oil change should be made after about 1000 hour's running or two months which ever is earlier and the subsequent changes would be made every 2000 hour's or six months. Which ever is earlier. The operating temperature up to 96°c is harmless to any component.

RECOMMENDED LUBRICANTS

Maker's Name	Without Oil Pump		With Oil Pump	
CASTROL	upto 250*	250-1500*	upto 250*	250-1500*
	Alpha 617	Alpha 417	Alpha 517	Alpha 317
INDIAN OIL	Servo System 553 Servomesh SP 40	Servo System 553 Servomesh SP 28	Servo System 553 Servomesh SP 28	Servo System 526 Servomesh SP 28

** Centre Distance*

SELECTION PROCEDURE

1. Compute the required reduction ratio.
2. Determin the horsepower required for the prime mover.
3. Check the gear boxes rating for various class of duty in the rating table.
4. The size should be selected such that the rated HP is equal or more than the consumed H.P.

EXAMPLE

Select a unit to transmit 15 H.P. from 960 rpm. electric motor.

- For hoist drive in a class II duty crane, the reduction ratio requied is 80.
- For hoist drive a triple stage horizontal gear box type HC will be suitable.
- See the ratio column and in the size HC-560, for input rpm of 960 in class II duty the rated HP is 15.4
- As the consumed HP is 15, the unit HC-560 will be suitable.

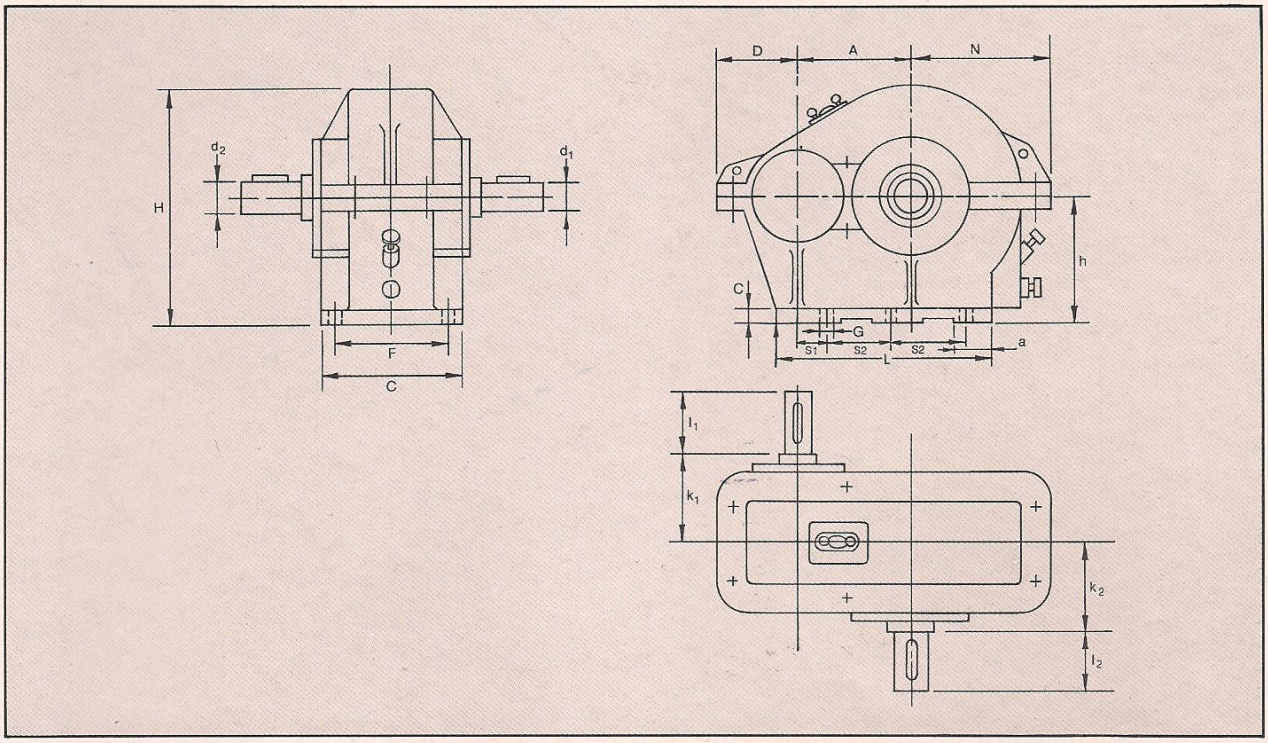
H.P. Rating for Single Stage Horizontal Gear Boxes Type HA

HA-100									HA-150									HA-200							
960				720				RPM	960				720				RPM	960				720			
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
24.6	17.6	13.5	10.8	19.2	13.6	10.6	8.45	1.83	81.8	59	45.5	36.4	64.8	46	36.6	28.5	1.83	178	126	98	78	139	100	76.5	61
21.3	15.1	11.7	9.35	17	12.1	9.35	7.5	2.3	71.5	50.7	39.4	31.4	56.7	40.5	31.2	25	2.3	158	112	87	69.5	125	89	69	55
18	12.8	9.9	7.9	14.5	10.8	8.2	6.8	2.81	60.5	43	33.3	26.6	48.8	36	27.3	22.9	2.81	135	96	74	59.5	109	79.5	62	50
15.6	11.1	8.6	6.85	12.8	9.1	7.05	5.6	3.5	52.7	37.4	29	23.2	43.2	30.6	23.7	19	3.5	120	85	66	52.50	98	70	54	43
14.2	9.9	7.82	6.25	11.2	8	6.15	4.9	3.95	46.5	32.2	25.6	20.4	36.2	26	20	16	3.95	110	76.5	60.7	48.5	86	61	47.5	38
12.6	9.15	7.05	5.5	9.9	7.2	5.5	4.35	4.5	42.2	30.6	23.6	18.3	33	24	18.5	14.6	4.5	99	71.5	55.5	43	78	57	43.7	35.4
10.2	7.1	5.4	4.44	8.4	5.95	4.6	3.8	5.6	34.4	23.9	18.3	15.3	28.2	20	15.4	12.7	5.6	81.5	56.6	43.3	36.2	67	47.5	36.6	30.2
8.26	5.75	4.4	3.6	6.7	4.7	3.66	3.02	6.6	27.9	19.4	14.8	12.4	22.8	16.2	12.5	10.3	6.6	66.1	47	35.2	29.4	54	38.4	29.5	24.3
6.7	4.65	3.56	2.92	5.4	3.84	2.95	2.44	8	22.4	15	11.9	10	18.4	13.1	10.1	8.3	8	53	35.4	28.2	23.6	43.5	30.8	23.8	19.6

HA-250									HA-300									HA-350							
960				720				RPM	960				720				RPM	960				720			
	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
346	246	190	152	270	192	151	119	1.83	664	470	364	292	520	370	286	229	1.83	1050	735	575	460	820	580	450	360
308	218	169	135	244	173	134	107	2.3	572	405	314	252	453	322	250	199	2.3	910	645	500	400	720	512	396	317
260	184	143	114	210	153	120	98.5	2.81	485	344	266	214	392	286	223	172	2.81	768	545	423	337	620	452	352	272
235	167	130	104	192	136	105	84	3.5	420	300	231	185	344	244	189	151	3.5	667	465	367	294	545	386	300	240
218	153	120	96	170	121	93.5	75	3.95	374	260	207	165	290	206	160	130	3.95	605	420	334	266	470	334	260	206
193	140	108	84	150	109	84	69	4.5	336	243	188	146	262	191	145	118	4.5	530	384	297	231	414	302	232	186
159	111	85.5	69	130	92.2	70.8	58.5	5.6	275	191	146	120	226	160	123	102	5.6	437	304	232	190	358	254	195	161
129	89.6	69.5	56	105	74.5	57.2	47.2	6.6	223	155	118.5	97	182	129	99	82	6.6	354	246	188	154	290	206	158	131
102	71	54.2	44.4	83.5	58.5	45.5	37.5	8	179	124	95.5	77.7	147	104	80	66	8	262	182	139	114	214	152	117	96

HA-400								
960				720				RPM
I	II	III	IV	I	II	III	IV	DUTY RATIO
1570	1020	865	690	1225	870	673	538	1.83
1360	965	745	597	1080	765	595	475	2.3
1142	810	628	502	920	670	523	405	2.81
1000	715	552	440	818	580	450	360	3.5
909	630	502	400	710	505	390	312	3.95
810	585	455	352	630	460	352	277	4.5
652	454	346	283	535	380	292	240	5.6
528	368	280	230	433	308	236	195	6.6
390	271	207	170	320	227	174	144	8

'HA' TYPE GEAR BOXES



SIZE	HOUSING DIMENSIONS								FOUNDATION HOLE DETAILS						Weight (appx.) Kg.
HA	A	a	L	C	H	h	D	N	S1	S2	F	G	K	Nos.	
100	100	52	260	154	233	125	95	—	30	170	115	15	18	4	40
150	150	60	330	190	323	170	115	225	35	230	150	17	22	4	82
200	200	70	410	225	423	225	142	275	45	300	180	17	25	4	132
250	250	75	505	300	515	265	165	330	45	190	230	25	25	6	255
300	300	75	580	330	610	315	190	420	45	230	260	25	30	6	341
350	350	95	695	385	697	355	220	465	55	280	315	32	35	6	640
400	400	150	870	400	792	400	253	500	110	350	320	32	35	6	856

SIZE	SHAFTS					
HA	d_1	l_1	k_1	d_2	l_2	k_2
100	30	60	82	35	55	92
150	40	85	100	55	85	115
200	50	85	155	80	120	125
250	60	108	205	80	120	160
300	60	108	220	80	120	175
350	90	135	242	110	145	228
400	90	135	250	110	145	235

All Dimention in m.m.

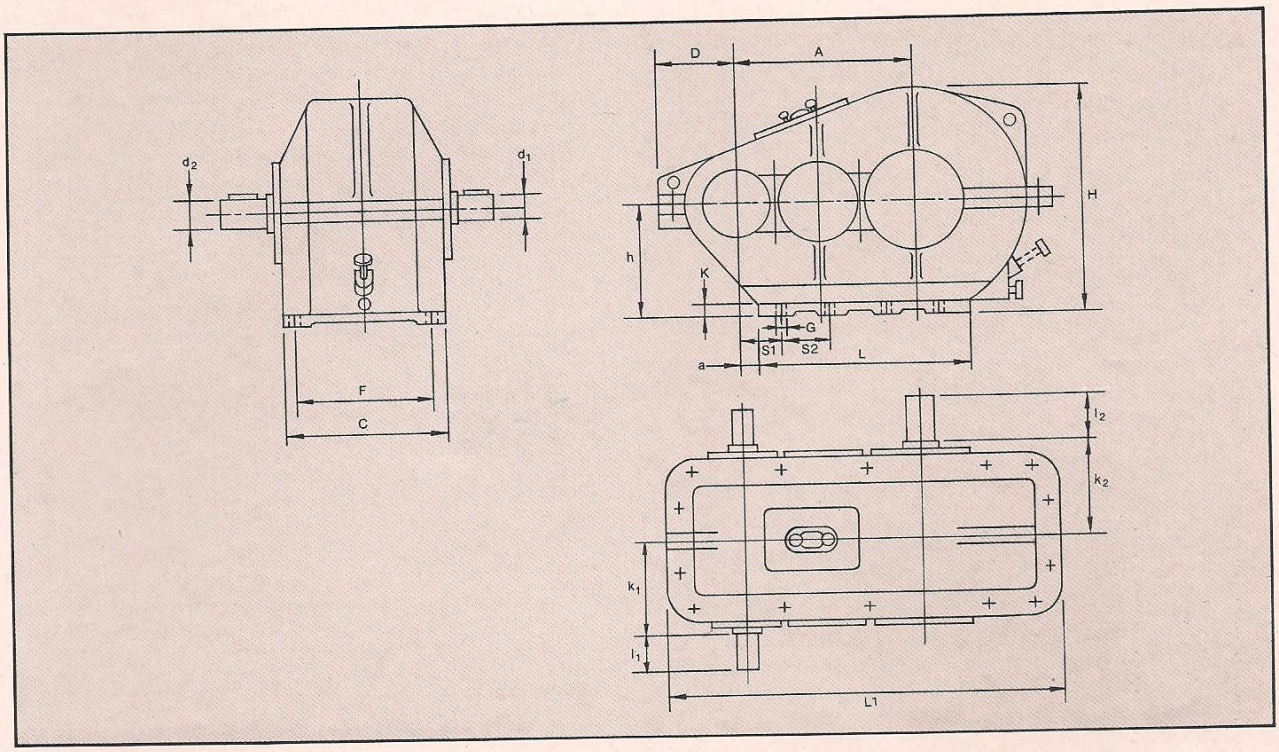
H.P. Rating for Double Stage Horizontal Gear Boxes Type HB

HB-250									HB-350									HB-400							
960				720				RPM	960				720				RPM	960				720			
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
24.4	17	12.7	9.5	19	12.7	10.6	7.4	8.23	55.5	39	30.4	21	43	30.4	24.2	16.8	8.23	75	54	41.5	33	60.5	42.5	34	26.5
20.1	13.8	10.6	7.4	16	10.6	8.5	6.35	10.35	46	32.6	25.2	16.8	37	25.2	20	13.7	10.35	66	45.5	37	28.6	53	37	29.6	22.2
17	11.7	9.6	6.4	13.8	9.5	7.4	5.3	12.64	39	27.4	21	14.7	31.5	22	16.8	11.6	12.64	57.2	39.2	31.8	24.4	46.5	31.8	25.4	19.1
14.9	9.5	8.5	5.3	10.6	7.4	6.4	4.3	15.74	33.6	23.1	17.9	12.6	25.2	17.9	13.7	9.5	15.74	49.8	34	26.5	19.1	39.2	26.5	21.2	14.8
11.7	8.5	6.4	4.3	8.5	6.4	4.3	3.2	20.49	26.3	18.9	13.7	9.5	21	14.7	10.5	7.4	20.49	44.5	30.8	24.4	17	35	24.4	19.1	12.7
9.6	7.4	5.3	3.2	7.4	5.3	4.3	3.2	23.34	23.1	16.8	12.6	8.4	18.9	12.6	9.5	6.3	23.34	39	27.6	21.2	14.8	32	21.2	17	11.7
7.4	5.3	4.3	3.2	6.4	4.3	3.2	2.1	31.50	17.8	12.6	9.5	6.3	13.7	9.5	7.4	5.3	31.50	30.4	22	14.7	10.6	23.2	17	11.7	8.5
6.4	4.3	3.2	2.1	4.3	3.2	2.1	2.1	40.17	14.7	10.5	7.4	5.3	10.5	7.4	5.3	4.3	40.17	25.5	18	12.7	8.5	21.2	14.7	9.5	7.4
5.3	3.2	2.1	2.1	4.3	2.1	2.1	1.1	48.57	12.6	8.4	6.3	4.3	9.5	6.3	4.3	3.2	48.57	23.4	15.9	10.6	7.4	18	11.7	8.5	5.3

HB-500									HB-650									HB-750							
960				720				RPM	960				720				RPM	960				720			
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
184	126	96	65	147	102	75.5	52	8.23	358	252	196	143	274	201	160	113	8.23	610	435	302	204	485	340	250	161
153	107	76.5	52.5	124	86	62	41	10.35	306	210	171	118	244	170	135	92	10.35	510	356	238	165	410	284	193	152
129	92	64	43.5	104	71	51	35	12.64	263	181	144	96	208	145	114	77	12.64	432	306	203	136	342	238	159	109
111	76	49	34	84	59	42	29	15.74	221	150	118	78	175	120	93	62	15.74	370	255	167	116	279	197	134	93
78	55	37	25	62	43	29	20	20.49	199	136	90	60	156	108	71	49	20.49	292	195	129	85	228	155	100	69
72	50	34	23.5	57	40	27	18.5	23.34	181	123	81	54	142	97	63	44	23.34	264	176	119	78	208	140	90	63
61	42	29	20	47	34	23	16	31.50	138	95	62	42	108	77	49	34	31.50	206	142	92	63	159	111	74	51
48	34	22	15	37	25	17	11.6	40.17	113	78	48	34	88	61	38	26	40.17	163	109	68	48	125	86	53	38
41	28.5	18	13	31.5	22	14	9.5	48.57	95	65	41	28.5	73	49	31.5	22	48.57	135	92	58	41	104	74	44	32

HB-850									HB-1000							
960				720				RPM	960				720			
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
1025	702	468	330	815	570	413	285	8.23	2050	1367	1050	739	1630	1086	835	588
857	587	391	270	689	478	319	220	10.35	1714	1142	878	622	1378	918	706	493
726	497	331	233	574	395	255	180	12.64	1452	968	691	490	1148	765	546	382
622	426	284	200	469	323	215	153	15.74	1244	802	572	402	938	625	446	314
426	292	195	139	333	228	152	108	20.49	852	591	422	297	666	475	339	240
385	269	179	128	304	211	136	97	23.34	770	531	379	267	608	419	299	210
301	206	137	98	232	159	106	76	31.50	602	415	296	208	462	318	220	155
238	163	109	79	182	125	83	60	40.17	476	328	234	165	366	250	173	119
197	135	90	65	152	104	69	50	48.57	394	271	193	136	307	211	146	102

'HB' TYPE GEAR BOXES



SIZE	HOUSING DIMENSIONS								FOUNDATION HOLE DETAILS						Weight (appx.) Kg.
HB	A	a	L	C	H	h	D	L1	S1	S2	F	G	K	Nos.	
250	250	28	300	230	320	160	111	555	60	236	190	17	18	4	100
350	350	60	415	290	393	200	123	710	100	310	250	18	18	4	175
400	400	80	490	310	505	250	140	826	110	370	270	17	23	4	270
500	500	80	620	360	591	300	150	985	130	240	310	18	23	6	410
650	650	75	840	470	716	320	200	1300	160	215	410	28	33	8	980
750	750	55	1025	510	745	320	207	1410	155	275	450	28	35	8	1200
850	850	75	1105	570	880	400	240	1640	155	300	510	33	38	8	1700
1000	1000	100	1350	660	972	400	257	1896	200	350	590	33	38	8	2850

SIZE	SHAFTS					
HB	d_1	l_1	k_1	d_2	l_2	k_2
250	30	60	145	55	85	150
350	38	85	170	55	85	175
400	38	85	185	80	125	190
500	48	85	210	80	125	215
650	55	110	275	110	165	285
750	60	110	310	120	165	335
850	85	130	325	130	200	335
1000	85	140	380	170	240	390

All Dimention in m.m.

H.P. Rating Triple Stage Horizontal Gear Boxes Type-HC

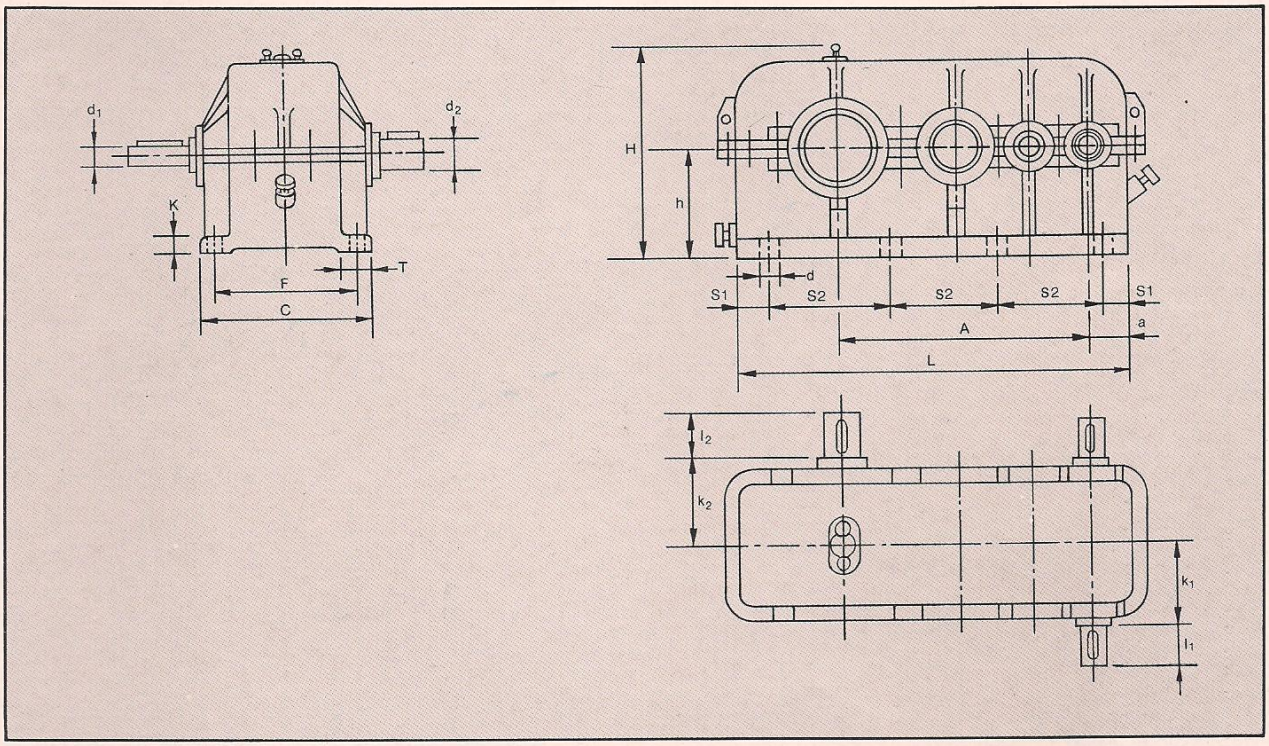
HC-400									HC-450									HC-500								
960				720				RPM	960				720				RPM	960				720				
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
16.8	12.1	9.9	7.2	13.1	9.4	7.7	5.6	31.5	24	17.2	14.2	10.3	18.7	13.4	11	8	31.5	33	23.7	19.5	14.2	25.7	18.5	15.2	11.1
13.9	10	8.2	6	10.8	7.8	6.4	4.6	40	19.7	14.1	11.6	8.5	15.4	11.1	9.1	6.6	40	27.6	19.8	16.3	11.9	21.5	15.4	12.7	9.2
11.5	8.3	6.8	4.9	9	6.5	5.3	3.9	50	16.3	11.7	9.6	7	12.7	9.1	7.5	5.5	50	22.8	16.4	13.5	9.8	17.8	12.8	10.6	7.7
9.6	6.9	5.7	4.1	7.5	5.4	4.4	3.2	63	13.7	9.8	8.1	5.9	10.7	7.7	6.3	4.6	63	18.4	13.2	10.9	7.8	14.4	10.3	8.5	6.2
7.7	5.5	4.5	3.3	6	4.3	3.5	2.6	80	11	7.9	6.5	4.7	8.6	6.2	5.1	3.7	80	15.2	10.9	9	6.5	11.9	8.5	7	5.1
7.0	5	4.1	3	5.5	3.9	3.2	2.3	90	9.8	7	5.8	4.2	7.6	5.5	4.5	3.3	90	13.8	9.9	8.1	5.9	10.8	7.8	6.4	4.6
6.2	4.4	3.7	2.7	4.8	3.4	2.8	2.1	100	8.9	6.4	5.3	3.8	6.9	5	4.1	3	100	12.3	8.8	7.3	5.3	9.6	6.9	5.7	4.1
5.1	3.7	3	2.2	4	2.9	2.4	1.7	125	7.2	5.2	4.2	3.1	5.7	4.1	3.4	2.5	125	10.2	7.3	6	4.4	8	5.7	4.7	3.4
4.1	2.9	2.4	1.8	3.2	2.3	1.9	1.4	160	5.8	4.2	3.4	2.5	4.5	3.2	2.7	1.9	160	8	5.7	4.7	3.4	6.3	4.5	3.7	2.7

HC-560									HC-630									HC-710								
960				720				RPM	960				720				RPM	960				720				
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
46.8	33.6	27.6	20.1	37	26.6	21.8	15.9	31.5	66	47.4	38.9	28.4	5.2	37.3	30	22.4	31.5	95	68.2	56	40.9	74	53.1	43.7	31.8
39	28	23	16.8	30.8	22.1	18.2	13.2	40	56	40.2	33	24.1	44.2	31.7	26	19	40	78	56	46	33.5	60.5	43.4	35.7	26
32.2	23.1	19	13.8	25.4	18.2	15	10.9	50	46	33	27.1	19.8	36.3	26.1	21.4	15.6	50	65	46.7	38.4	28	50.4	36.2	29.7	21.7
26.4	19	15.6	11.4	20.9	15	12.3	9	63	38	27.3	22.4	16.3	30	21.5	17.7	12.9	63	54	38.8	31.9	23.2	42	30.2	24.8	18.1
21.4	15.4	12.6	9.2	16.9	12.1	10	7.3	80	31	22.3	18.2	13.3	24.5	17.6	14.4	10.5	80	44	31.6	26	18.9	34.1	24.5	20.1	14.7
19.5	14	11.5	8.4	15.4	11.1	9.1	6.6	90	27	19.4	15.9	11.6	21.3	15.3	12.6	9.2	90	39	28	23	16.8	30.3	21.8	17.9	13
17.6	12.6	10.4	7.6	13.9	10	8.2	6	100	25	18	14.8	10.8	19.8	14.2	11.7	8.5	100	35	25.1	20.7	15.1	27.2	19.5	16	11.7
14.2	10.2	8.4	6.1	11.2	8	6.6	4.8	125	20.5	14.7	12.7	8.8	16.2	11.6	9.6	7	125	28.5	20.5	16.8	12.2	22.1	15.9	13	9.5
11.5	8.3	6.8	4.9	9.1	6.6	5.4	3.9	160	16.3	11.7	9.6	7	13	9.3	7.7	5.6	160	23.2	16.7	13.7	10	18	12.9	10.6	7.7

HC-800									HC-900									HC-1000								
960				720				RPM	960				720				RPM	960				720				
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
137	98.4	80.8	59	107	76.8	63.1	46	31.5	196	141	116	84.3	153	110	90.3	65.8	31.5	270	194	159	116	211	151	124	90.7
112	80.4	66.1	48.2	87.4	62.8	51.6	37.6	40	162	116	95.6	69.7	126	90.5	74.3	54.2	40	221	159	130	95	172	123	101	74
93	66.8	54.9	40	72.5	52.1	42.8	31.2	50	135	97	79.7	58.1	105	75.4	62	45.2	50	184	132	109	79.1	144	103	85	62
78	56	46	33.5	61	43.8	36	26.2	63	110	79	65	47.3	86	61.7	50.7	37	63	152	109	89.7	65.4	119	85.4	70.2	51.2
63	45.2	37.2	27.1	49	35.2	29	21.1	80	88	63.2	51.9	37.8	68.6	49.3	40.5	29.5	80	123	88.3	72.6	38	96	69	56.6	41.3
56	40.2	33	24.1	43.7	31.4	25.8	18.8	90	81	58.2	47.8	34.8	63.2	45.4	37.3	27.2	90	110	79	65	47.3	86	61.7	50.7	37
51	36.6	30.1	22	40	28.7	23.6	17.2	100	74	53.1	43.7	31.8	57.7	41.4	34	24.7	100	100	71.8	59	43	78	56	46	33.5
42	30.2	24.8	18.1	32.8	23.6	19.4	14.1	125	59	42.4	34.8	25.4	46	33	27.1	19.8	125	83	59.6	49	35.7	64.7	46.5	38.2	27.8
33	23.7	19.5	14.2	25.7	18.5	15.2	11.1	160	48	34.5	28.3	20.6	37.4	26.9	22.1	16.1	160	66	47.4	39	28.4	51.5	37	30.4	22.1

HC-1120									HC-1250							
960				720				RPM	960				720			
I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
380	273	224	163	300	215	177	129	31.5	529	380	312	227	418	300	247	180
311	223	183	134	246	177	145	106	40	431	309	254	185	340	244	201	146
260	187	153	112	205	147	121	88.2	50	364	261	215	157	288	207	170	124
213	153	126	91.6	168	121	99	72.2	63	300	215	177	129	237	170	140	102
172	123	101	74	136	97.6	80	58.5	80	246	177	145	106	194	139	114	83.4
157	113	92.6	67.5	124	89	73.2	53.3	90	221	159	130	95	175	126	103	75.3
142	102	83.8	61.1	112	80.4	66.1	48.2	100	197	141	116	84.7	156	112	92	67.1
115	82.6	67.9	49.5	91	65.3	53.7	39.1	125	162	116	95.6	69.7	128	92	75.5	55
93	66.8	54.9	40	73.5	52.8	43.4	31.6	160	130	93.3	76.7	56	103	74	60.8	44.3

'HC' TYPE GEAR BOXES



SIZE	HOUSING DIMENSIONS							FOUNDATION HOLE DETAILS						Weight (appx.)
HC	A	a	L	C	T	H	h	S1	S2	F	d	K	Nos.	Kg.
40	400	70	650	270	50	415	200	45	280	225	16	21	6	267
45	450	80	730	300	52.5	460	225	50	315	250	16	23	6	370
50	500	95	820	330	55	510	250	55	355	280	18	25	6	465
56	560	110	920	370	60	565	280	40	280	315	20	28	8	640
63	630	120	1030	415	70	630	315	42.5	315	355	23	32	8	900
71	710	130	1160	470	80	705	355	47.5	355	400	25	35	8	1170
80	800	140	1300	530	90	800	400	50	400	450	27	38	8	1600
90	900	160	1460	590	100	895	450	55	450	500	30	40	8	2100
100	1000	180	1620	650	110	995	500	60	500	560	33	43	8	2800
112	1120	200	1820	730	120	1105	560	70	560	630	36	46	8	3700
125	1250	230	2040	830	140	1235	630	75	630	710	39	50	8	5100

SHAFTS								
i ⩽ 70			i > 70			—		
d_1	l_1	k_1	d_1	l_1	k_1	d_2	l_2	k_2
25	40	155	20	30	155	70	105	160
28	45	170	25	40	170	70	115	180
35	50	185	30	45	185	85	130	195
40	60	210	35	50	210	95	145	215
45	65	225	38	55	225	105	160	235
48	75	260	40	60	260	120	180	270
50	80	290	45	65	290	125	200	300
65	100	320	50	75	320	140	225	330
70	105	350	55	80	350	170	250	365
75	115	400	60	90	400	190	280	440
80	120	415	65	100	415	200	300	460

All Dimention in m.m.

H.P. Rating of Three Stage Vertical Gear Boxes Type - VC

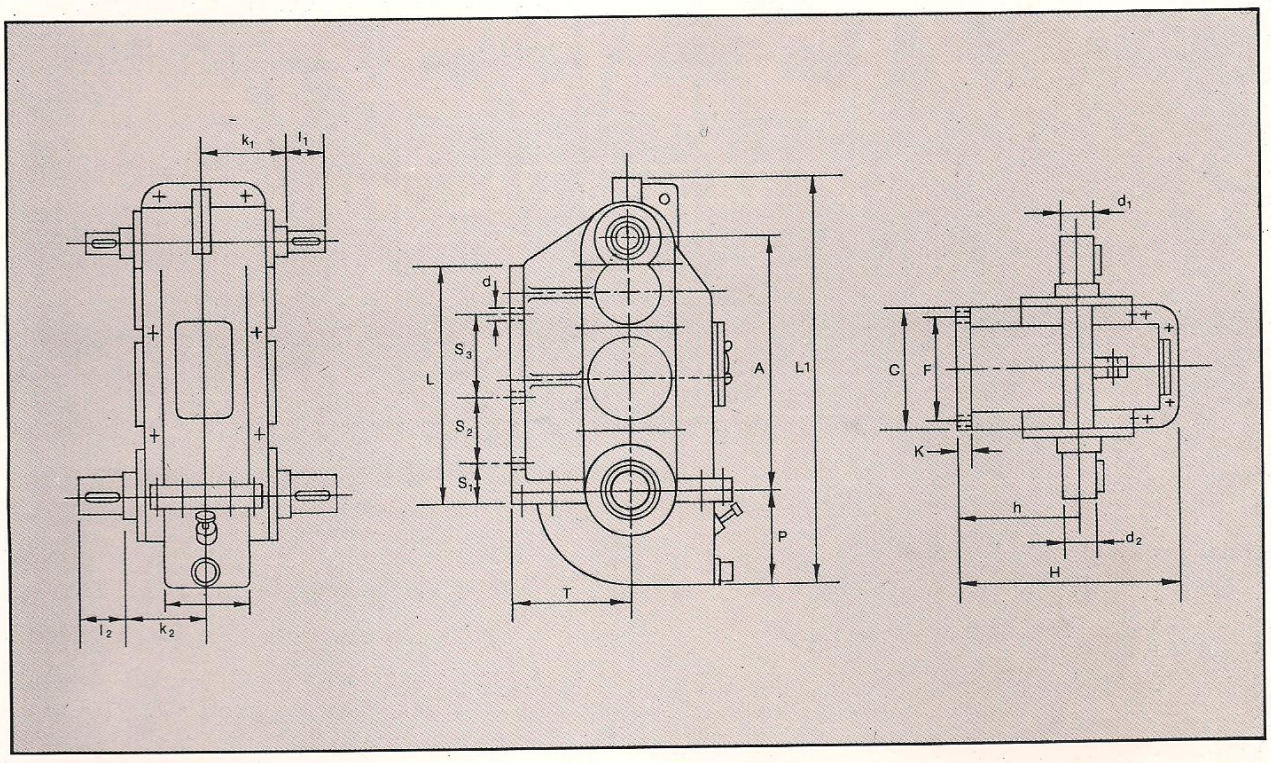
VC-280									VC-320									VC-350								
RPM	960				720				RPM	960				720				RPM	960				720			
DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
14.85	5.8	4.2	3.4	2.5	4.5	3.2	2.7	1.9	14.26	7	5	3.9	3	5.7	4	3.3	2.5	10.69	10.7	7.5	5.9	4.7	9.2	6.4	5.1	4
20.62	4.7	3.4	2.8	2	3.6	2.6	2.1	1.5	17	5.9	4.2	3.3	2.5	4.8	3.4	2.7	2	14.67	8.1	5.7	4.5	3.6	6.9	4.8	3.8	3
24	4	2.9	2.4	1.7	3.1	2.2	1.8	1.3	25.28	4	2.8	2.2	1.7	3.2	2.2	1.8	1.4	30.56	4.1	2.9	2.3	1.8	3.4	2.4	1.9	1.5
33.4	3.4	2.1	2	1.5	2.6	1.9	1.5	1.1	52.36	1.9	1.4	1	0.8	1.5	1	0.9	0.7	49.49	2.6	1.8	1.4	1.1	2.2	1.5	1.2	1

VC-400									VC-475								
RPM	960				720				RPM	960				720			
DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
15.95	18.8	13.2	10.3	8.3	16.6	11.6	9.1	7.3	19.68	19.3	13.5	10.6	8.5	17.2	12.1	9.5	7.8
21	16.7	11.7	9.2	7.3	14.1	9.9	7.8	6.2	29.06	16.4	11.5	9	7.2	14.4	10.1	7.9	6.3
41.23	9	6.3	5	4	7.5	5.3	4.1	3.3	52.92	10.8	7.6	5.9	4.8	9.2	6.4	5.1	4
85.39	4.4	3.1	2.4	1.9	3.6	2.5	2	1.6	109.61	5.6	3.9	3.1	2.5	4.7	3.3	2.6	2.1

VC-550									VC-600								
RPM	960				720				RPM	960				720			
DUTY RATIO	I	II	III	IV	I	II	III	IV	DUTY RATIO	I	II	III	IV	I	II	III	IV
17.72	35.1	24.7	19.3	15.4	31.9	22.5	17.5	14	17.74	35.1	24.7	19.3	15.4	31.9	22.5	17.5	14
32.90	25.6	18	14.1	11.3	21.6	15.2	11.9	9.5	32.93	25.6	18	14.1	11.3	21.6	15.2	11.9	9.5
68.28	12.9	9.1	7.1	5.7	10.8	7.6	5.9	4.8	68.02	12.9	9.1	7.1	5.7	10.8	7.6	5.9	4.8
126.78	7.1	5	3.9	3.1	5.9	4.2	3.2	2.6	126.29	7.1	5	3.9	3.1	5.9	4.2	3.2	2.6

All Dimention in m.m.

'VC' TYPE GEAR BOXES



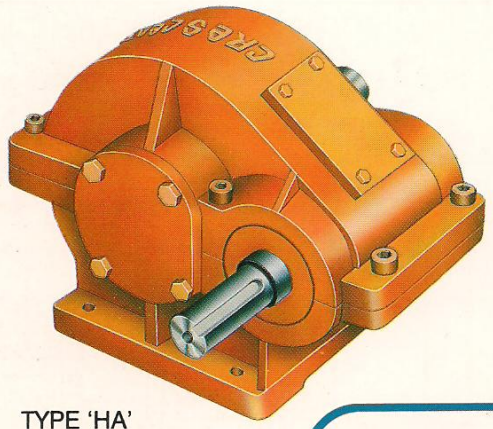
SIZE	HOUSING DIMENSIONS								FOUNDATION HOLE DETAILS							Weight (appx.)
VC	A	L	C	H	h	L1	P	T	S1	S2	S3	F	d	K	Nos.	Kg.
280	280	240	176	272	130	483	113	128	50	—	140	140	14	20	4	118
320	320	270	190	295	140	543	123	138	60	—	150	150	17	20	4	152
350	350	280	225	320	150	595	135	148	60	—	160	185	17	20	4	175
400	400	330	230	376	178	680	170	174	45	110	120	188	17	20	6	185
475	475	482	270	475	225	785	205	—	50	80	200	215	17	25	8	222
550	550	560	285	488	235	880	215	230	50	70	320	245	17	30	8	270
600	600	625	350	570	250	975	240	—	50	70	375	305	17	35	8	340

SIZE	SHAFTS					
VC	d_1	l_1	k_1	d_2	l_2	k_2
280	24	50	110	40	55	115
320	28	65	120	48	70	125
350	28	65	140	48	70	145
400	30	70	145	55	90	150
475	38	105	160	65	105	175
550	38	105	195	80	105	187
600	38	105	210	80	120	215

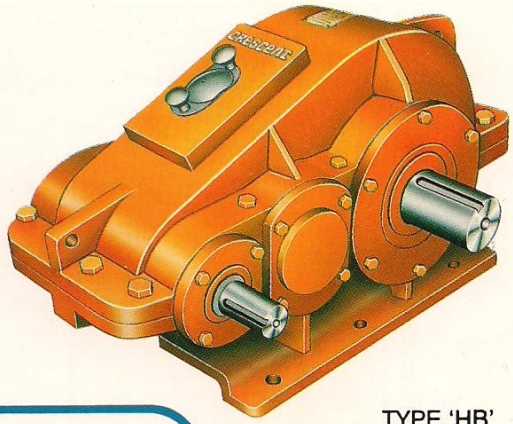
All Dimention in m.m.

CRESCENT

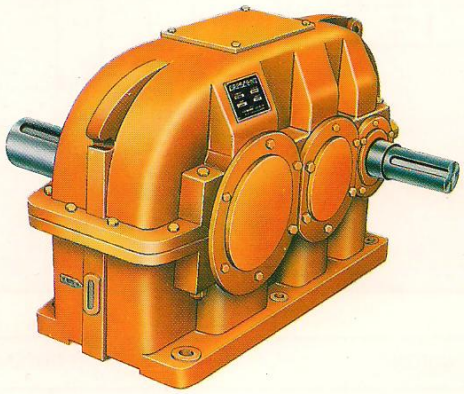
GEAR BOXES



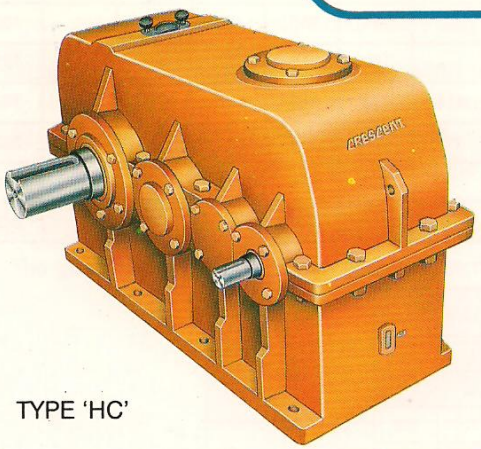
TYPE 'HA'



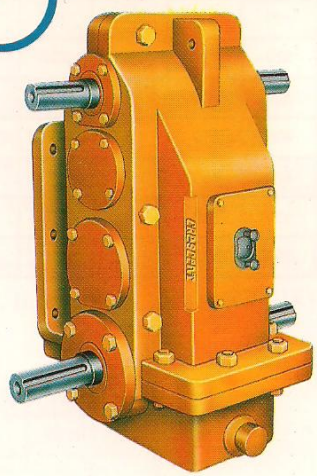
TYPE 'HB'



DOUBLE REDUCTION PROFILE GROUND GEAR BOX



TYPE 'HC'



TYPE 'VC'

Designed & Printed by Infab Print-n-Sales Tel.: 5614992

Manufactured by:

Sokhi Engineering Works (Regd.)

Unit-1
619-A/2, Loni Road, Shahdara, Delhi-110 032
Tel. : 2280440, 2114606
Fax : 011-2296707

Unit-2
61/22-25, Site IV, Sahibabad Industrial Area,
Ghaziabad-201 010
Tel.: 8-772456