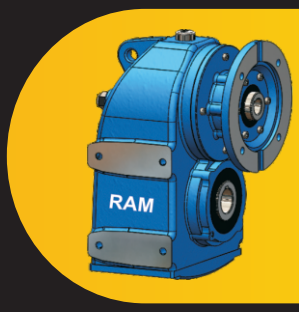
RAM®
INDUSTRIES

Start With Quality, Destination Will Be Excellence

Manufacturer and supplier of Industrial Gearboxes and Spares



RAM'S PRODUCTS

- GEARBOXES
- GEARMOTORS
- CUSTOMIZED GEARBOX
- TAPER LOCK PULLEYS

- SPROCKETS & COUPLINGS
- GROUND GEARS
- HYDRAULIC CYLINDERS
- INDUSTRIAL SPARES

www.ramgearbox.com

Ever since RAM'S establishment 15 years ago, we have strived to achieve new frontiers of technical excellence. Gear units are manufactured in different sizes and Ratio is adaptable, RU and Fix Foo1 mounting type. It is available from 44. 5 mm to 304.8 mm centre distance and 5: 1 to 70:1 in single stage and up to 4900: 1 indouble stage.

Gear Case

Gear case has abundant ribs which augment heat dissipating area. It is robust in construction, made of close- grained cast iron. It is completelyoil-tight and dust- proof.

Worm/ Worm wheel

The worm is made of case- hardening alloy steel. Worms are generated on thread milling machines, gas carburized and profile ground.

Worm wheels are made of phosphorous bronze. Worm wheels are hobbed on precision hobbing machines. Gear design ensures uniformt ransmission of angular velocity under all load conditions with higher efficiency.

Bearings

The worms and worm wheels are sustained on ball or roller bearings of Sufficient margin of safety to permit adequate thrust loads.

Wheel Shaft

The wheel shaft is made of high Tensile carbon steel. It is of large diameter to hold the torsional as well as bending loads.

Lubrication

Lubrication of gears and bearings is by splash Of oil from the sump. Oil is not supplied with the gear unit. Occasional topping-Up of oil is required. Branded oil seals are fitted on input and output shafts. First change of oil should be made after 500 hrs of operation. Subsequentoil change must be made after 3000 hrs of operation/12 months(whichever is earlier).

Synthetic lubrication is also available up to 3.0"gear units.

Gear units are satisfactorily operational in cement, chemical, plastic and other numerous industries. Units will work safely provided that they are selected, installed, used and maintained properly.

SERVICE FACTORS

Prime Mover	Duration of Service	Nature of Load		
		Uniform	Moderate Shock	Heavy Shock
Electric motor	8 hours/day	0.90	1.10	1.50
	12hourse/day	1.00	1.30	1.60
	24hourse/day	1.30	1.50	1.80

DATA REQUIRED FOR THE SELECTION OF GEAR UNITS

01. Type of unit required (i.e. under driven, over driven, Hollow shaft, Upward Down ward)
02. Power to be transmitted in HP or KW.
03. Service Factor.
04. State input/output speed of gear unit.
05. Hours of Operation per day.
06. Peak or Shock load giving magnitude and duration wherever possible.
07. Type of drive machine.
08. Type of drive, for instance V- Belt, spur gear or coupling.
09. Ambient Temperature, if higher than 40° C
10. Mounting & Handing Position.

NOMINAL POWER RATING - HP

NOMINAL RATIO	INPUT RPM	1.75	2.0	2.5	3.0	3.5	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0
5:1	1500	01.35	01.98	03.04	06.60	09.10	15.12	24.10	40.70	57.60	71.10	86.40	96.00	120.00
	1000	01.14	01.53	02.25	04.70	06.75	11.52	19.80	28.70	41.04	52.00	62.10	70.00	91.00
	750	00.99	01.40	01.80	03.80	05.60	09.90	15.75	22.50	33.75	42.30	53.10	57.00	74.15
10:1	1500	00.90	01.35	02.11	04.32	08.20	09.00	17.20	24.75	33.75	43.20	56.80	72.00	99.80
	1000	00.72	00.99	01.88	03.42	05.50	07.50	14.70	20.50	29.00	38.00	51.00	56.90	83.50
	750	00.68	00.87	01.25	02.98	04.70	06.00	12.20	17.50	23.50	31.00	42.00	45.50	67.40
15:1	1500	00.77	01.18	01.76	03.42	05.04	07.00	12.00	22.00	27.50	39.40	48.00	63.50	91.00
	1000	00.63	00.86	01.40	02.61	04.40	05.30	09.50	16.00	23.00	30.00	39.00	47.70	66.80
	750	00.55	00.83	01.05	02.25	03.62	04.30	07.90	14.00	17.50	24.50	33.00	37.50	53.00
20:1	1500	00.59	00.86	01.31	02.61	03.96	06.20	11.10	17.00	22.00	30.00	38.00	48.70	73.20
	1000	00.48	00.66	01.11	02.20	03.42	04.40	08.60	13.00	17.00	22.00	32.80	36.80	54.00
	750	00.46	00.60	00.86	01.86	02.94	03.70	07.10	11.20	14.00	19.00	25.50	29.80	43.00
25:1	1500	00.58	00.74	01.17	02.07	03.60	04.90	09.50	15.00	20.50	27.00	32.00	43.50	64.00
	1000	00.45	00.61	00.95	01.84	03.00	03.70	06.70	11.00	16.00	20.50	29.00	32.00	47.00
	750	00.42	00.53	00.68	01.42	02.43	03.40	05.50	09.20	12.60	17.00	22.60	25.80	38.00
30:1	1500	00.49	00.72	01.13	01.98	03.24	04.40	07.90	12.20	17.50	21.50	27.75	39.10	54.50
	1000	00.40	00.57	00.90	01.74	02.69	03.40	06.20	10.00	13.00	17.00	25.00	29.50	41.00
	750	00.38	00.50	00.60	01.38	02.25	02.70	05.00	08.10	10.50	14.00	19.80	23.40	32.60
40:1	1500	00.45	00.67	00.90	01.62	02.70	03.70	06.20	10.20	13.50	17.50	22.50	30.80	44.50
	1000	00.33	00.53	00.81	01.36	02.32	02.60	04.90	07.50	10.50	14.00	21.00	23.00	32.80
	750	00.31	00.44	00.52	01.12	01.94	02.10	03.90	06.20	09.00	11.00	15.00	18.50	26.20
50:1	1500	00.32	00.54	00.81	01.30	02.48	02.80	05.00	08.50	12.60	15.40	20.00	24.90	37.10
	1000	00.26	00.43	00.72	01.01	02.00	02.10	04.00	06.40	09.80	12.50	16.40	18.80	27.60
	750	00.24	00.35	00.40	00.84	01.70	01.80	03.40	05.60	08.20	10.00	13.50	15.20	22.00
60:1	1500	00.29	00.45	00.78	01.04	02.25	02.40	04.30	07.00	10.50	13.00	18.00	22.00	32.20
	1000	00.23	00.37	00.60	00.90	01.60	01.80	03.40	05.30	08.00	10.80	14.10	16.80	23.50
	750	00.21	00.30	00.35	00.75	01.50	01.60	02.75	04.50	07.00	09.00	12.00	13.60	18.80
70:1	1500	00.18	00.41	00.68	00.90	01.80	02.20	03.70	06.00	08.50	11.00	13.50	19.80	27.00
	1000	00.13	00.30	00.40	00.80	01.42	01.50	03.00	05.00	07.40	09.20	10.80	15.00	22.70
	750	00.12	00.22	00.30	00.64	01.20	01.40	02.50	03.85	05.80	07.60	07.90	12.00	17.00

APPROXIMATE OIL CAPACITY IN LITRES

	1.75"	2.0"	2.25"	2.5"	3.0"	3.5"	4.0"	5.0"	6.0"	7.0"	8.0"	9.0"	10.0"	12.0"
HORIZONTAL (U)	0.2	0.25	0.45	0.55	1.0	2.5	3.25	4.0	5.0	9.5	11	16	21	25
VERTICAL	0.25	0.3	0.7	0.85	1.4	3.5	4.0	5.7	8.5	18	20	25	26	32

Due to Continuous Developments, Dimensions & Other Details in this Catalogue may be changed without any notice.
Recommended oil grade is 320 of any reputed brand.

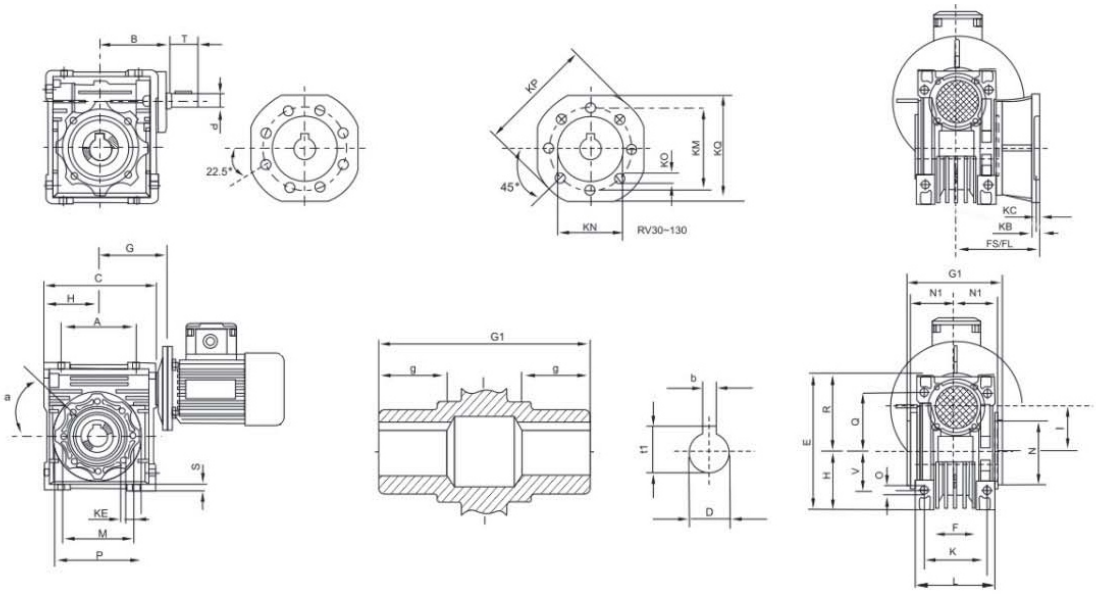
RAM is specialized in production of various reduction gears.

RAM aluminum body gearboxes are totally dust proof and oil leak proof with attractive look. The cooling fins in all faces having maximum surface area exposes to atmosphere for improved efficiency and more capability of heat dissipation.

Due to robust & compact construction, easy interchangeability of input flange are suitable to serve in all operating conditions of every industries.

The permissible overhung and shock loads achieved by perfect alignment of accurately bored housing for ball and taper roller bearing.

Case carburized, grounded alloy steel worm shaft ensure a positive oil film and the perfectly hoobbed phosphorous bronze worm wheel assures superior efficiency and low noise.



SIZE	A	C	D(H7)	E	F	G	H	I	L	M	N(h8)	O	P	Q	R	S	T	V	K
30	54	80	14	97	32	54	40	30	56	65	54	6.5	75	44	57	5.5	20	27	44
40	70	101	18	121.5	43	62	50	40	71	75	60	6.5	87	55	71.5	6.5	23	35	60
50	80	121.5	25	144	49	90	60	50	85	85	70	8.5	100	65	85	7	30	40	70
63	100	147.5	25	174	67	106	72	63	103	95	80	8.5	110	80	102	8	40	50	85
75	120	174	28	205	72	121	86	75	113	115	95	11	140	93	119	10	50	60	90
90	140	208	35	238	72	138	103	90	130	130	110	13	160	102	135	11	50	70	100
110	170	252.5	42	295	--	159	127.5	110	142	165	130	14	200	125	166.5	15	60	85	115
130	200	292.5	45	335	--	179	147.5	130	155	215	180	16	250	140	187.5	15	80	100	120
150	240	340	50	400	--	212	170	150	185	215	180	18	250	180	230	18	80	125	145
185	310	412	60	472	--	247	207	185	220	265	230	22	300	213	265	25	80	155	175

SIZE	G1	G	N1	FS	FL	KB	KC	KE	A	KM	KN(H8)	KO	KP	KQ	D(J6)	B	T1
30	63	20	29	54.5	--	6	4	M6X11(n4)	0°	68	50	6.5(4/90°)	80	70	9	5	16.3
40	78	23	36.5	67	97	7	4	M6X8(n4)	45°	67	60	9(4/90°)	110	95	11	6	20.8
50	92	30	43.5	90	120	9	5	M8X10(n4)	45°	90	70	11(4/90°)	125	110	14	8	28.3
63	112	40	53	82	112	10	6	M8X14(N8)	45°	150	115	11(4/90°)	180	142	19	8	28.3
75	120	40	57	111	--	13	6	M8X14(n8)	45°	165	130	14(4/90°)	200	170	24	8	31.3
90	140	45	67	111	--	13	6	M10X18(n8)	45°	175	152	14(4/90°)	210	200	24	10	38.3
110	155	50	74	139	--	15	6	M10X18(n8)	45°	220	170	14(8/90°)	270	250	28	12	45.3
130	170	60	81	151.5	--	15	6	M12X20(n8)	45°	255	180	16(8/45°)	320	290	30	14	48.8
150	200	70	96	155	--	15	7	M12X21(n8)	45°	255	180	16(8/45°)	320	290	35	14	53.8
185	240	70	116	190	--	22	7	M16X25(n8)	45°	350	280	22(8/45°)	400	390	40	18	64.4

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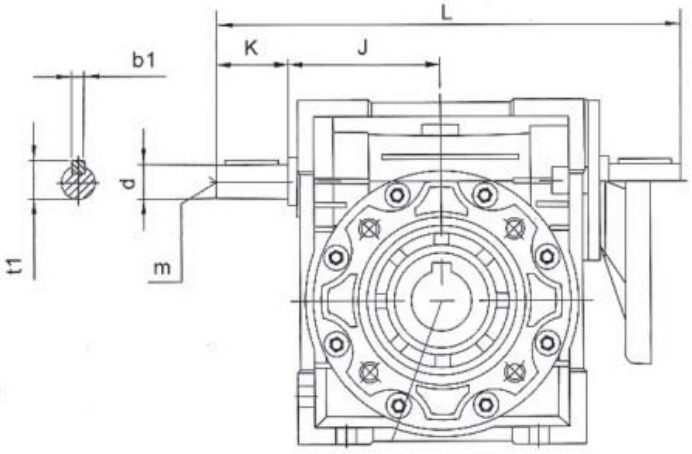
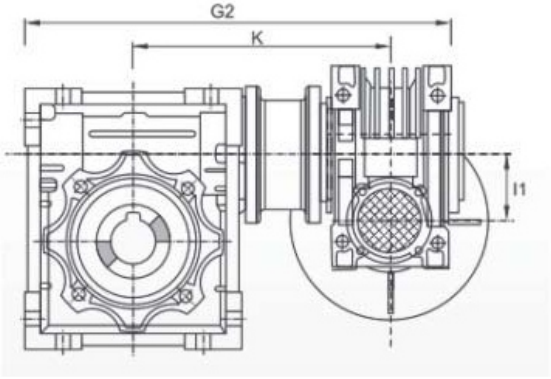
Extension worm shaft (S) dimensions

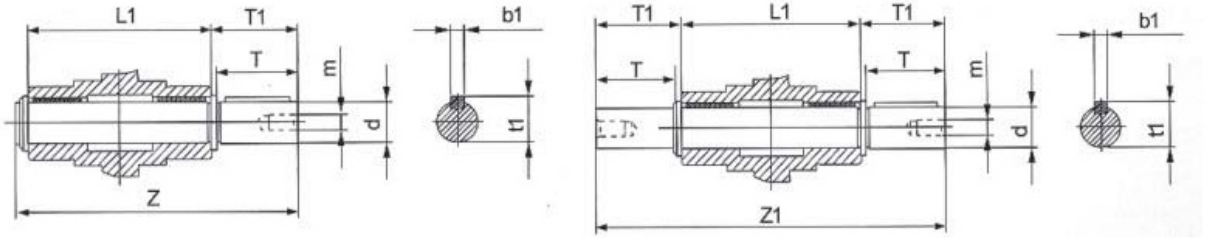
Size	J	d(j6)	K	L	m	b1	t1
30	45	9	20	136	---	3	10.2
40	53	11	23	165	---	4	12.5
50	63	14	30	198	M6	5	16
63	75	19	40	245	M6	6	21.5
75	90	24	50	295	M8	8	27
90	108	24	50	333	M8	8	27
110	135	28	60	397	M10	8	31
130	155	30	80	477	M10	8	33
150	210	35	80	590	M12	10	38
185	240	40	80	650	M12	12	43





Dimensions of Double Worm

BOX + BOX	K	I1	G2
BOX 030 + 040	122	30	201
BOX 030 + 050	132	30	221
BOX 030 + 063	145	30	246
BOX 040 + 075	167.5	40	290
BOX 040 + 090	184.5	40	324
BOX 050 + 110	226	50	397



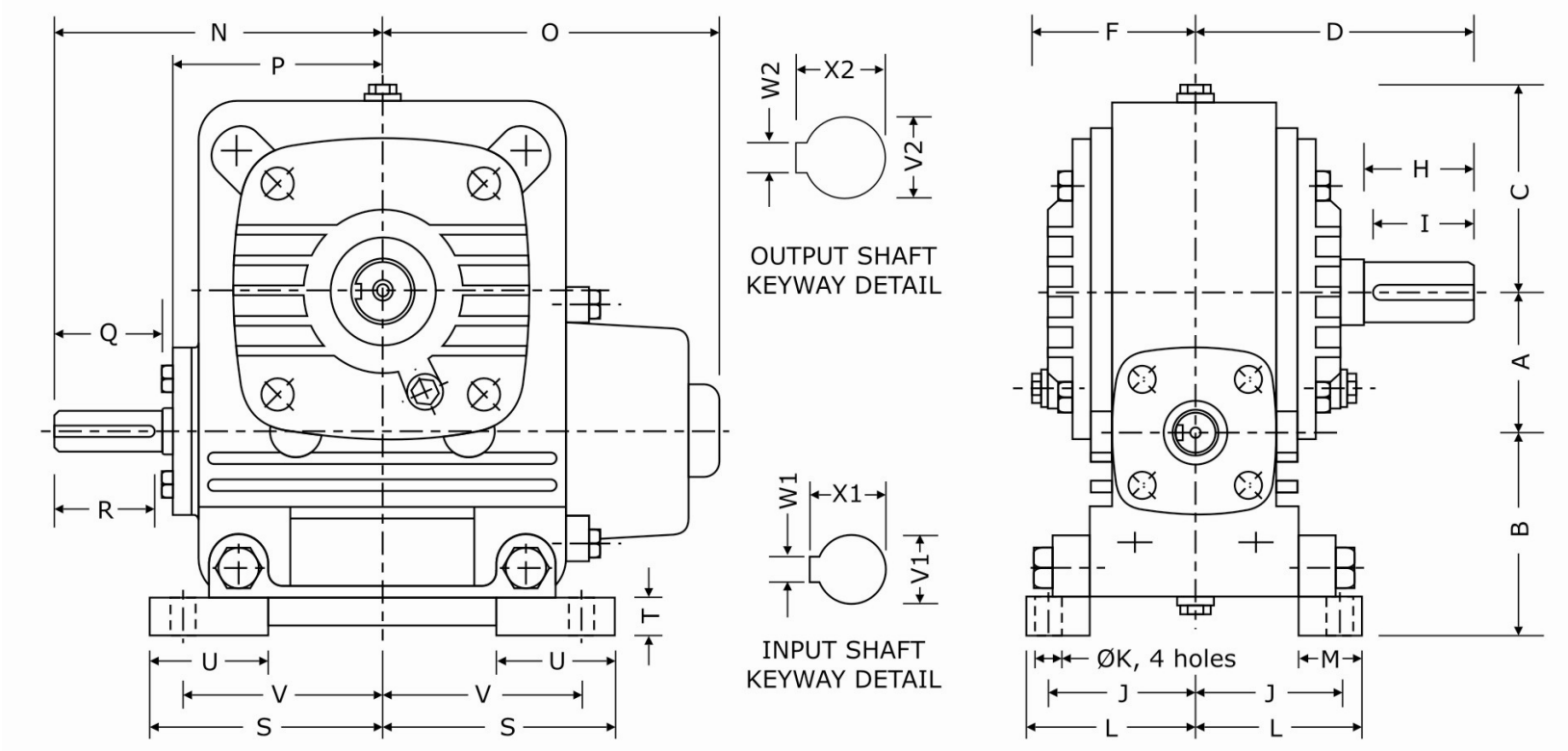
Single/double output shaft dimensions

Size	d(h6)	T	T1	L1	Z	Z1	m	b1	t1
30	14	30	32.5	63	102	128	M6	5	16
40	18	40	43	78	128	164	M6	6	20.5
50	25	50	53.5	92	153	199	M10	8	28
63	25	50	53.5	112	173	219	M10	8	28
75	28	60	63.5	120	192	247	M10	8	31
90	35	80	84.5	140	234	309	M12	10	38
110	42	80	84.5	155	249	324	M16	12	45
130	45	80	85	170	265	340	M16	14	48.5
150	50	102	110	214	324	420	M20	14	53.5
185	60	112	120	254	374	480	M20	18	64

Power Rating (sf=1) at 1400 input RPM

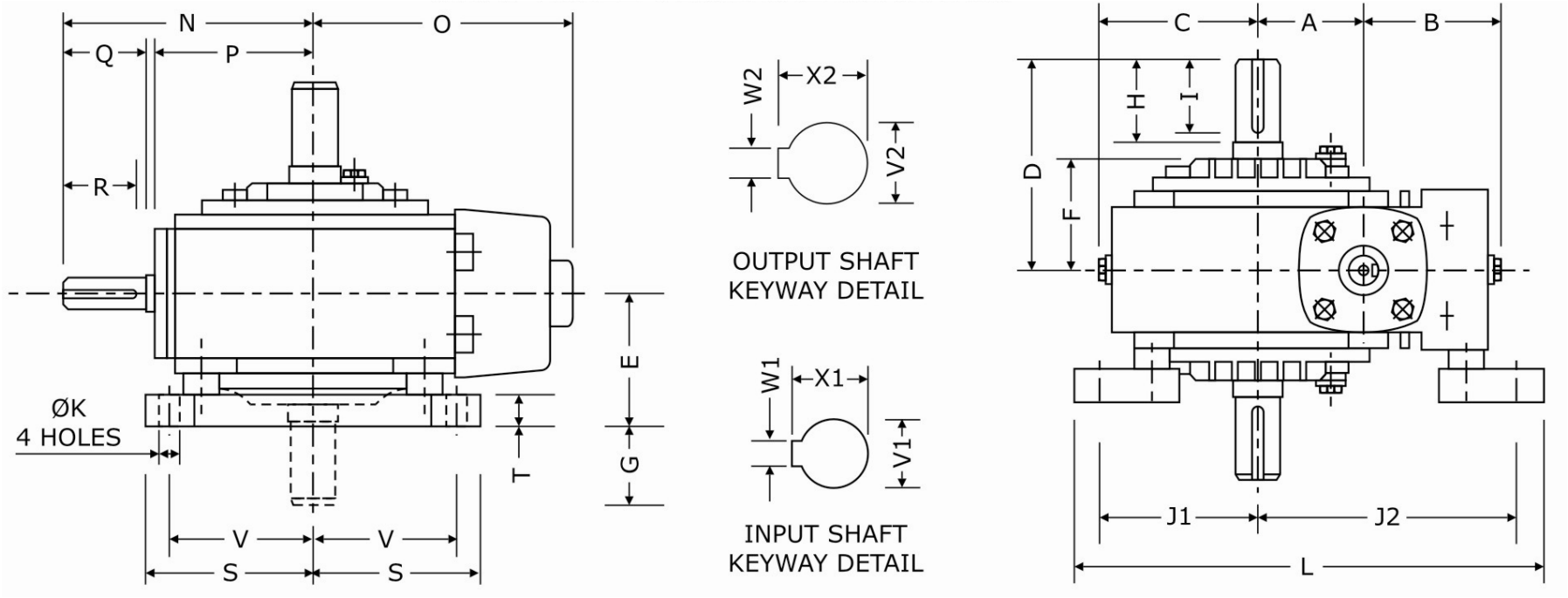
Ratio	Rating	O/P RPM	Size									
			30	40	50	63	75	90	110	130	150	185
7.5	KW	187	0.41	0.90	1.58	2.84	4.06	6.3	10.4	16.1	25.8	39.1
	T		18	40	71	128	185	290	480	750	1200	1740
10	KW	140	0.32	0.69	1.23	2.19	3.25	5.11	8.57	13.5	20.2	30
	T		18	40	72	130	195	310	520	820	1240	1800
15	KW	93	0.23	0.48	0.88	1.65	2.30	4.09	6.48	10.3	13.9	21
	T		18	40	74	140	200	360	570	920	1250	1760
20	KW	70	0.18	0.37	0.68	1.22	1.88	3.10	4.83	7.76	11	19.6
	T		18	39	73	135	210	355	560	910	1300	2270
25	KW	56	0.18	0.30	0.54	0.98	1.47	2.43	4.12	6.49	8.4	13.8
	T		21	38	70	130	200	340	590	930	1200	1950
30	KW	47	0.15	0.31	0.57	1.08	1.48	2.57	3.90	6.35	7	14
	T		20	45	84	160	230	410	630	1040	1200	2200
40	KW	35	0.11	0.23	0.42	0.76	1.12	1.76	2.87	4.93	7.3	12.1
	T		18	41	76	145	220	360	610	1050	1550	2570
50	KW	28	0.09	0.18	0.34	0.60	0.89	1.38	2.35	3.83	5.4	9.3
	T		17	39	73	135	210	340	600	980	1400	2370
60	KW	23	0.08	0.15	0.28	0.51	0.75	1.13	1.9	3.05	4.2	7.6
	T		16	36	68	130	200	320	560	900	1260	2270
80	KW	18	0.05	0.12	0.22	0.39	0.58	0.83	1.34	2.26	3.1	5.6
	T		13	33	65	122	190	285	490	840	1150	2100
100	KW	14	--	0.09	0.16	0.34	0.48	0.67	1.07	1.70	2.29	4.1
	T		--	29	55	118	180	270	460	740	1000	1810
			1.4	2.2	3.8	7.0	10	15	43	55	100	170

RAM ADAPTABLE HORIZONTAL GEAR BOX



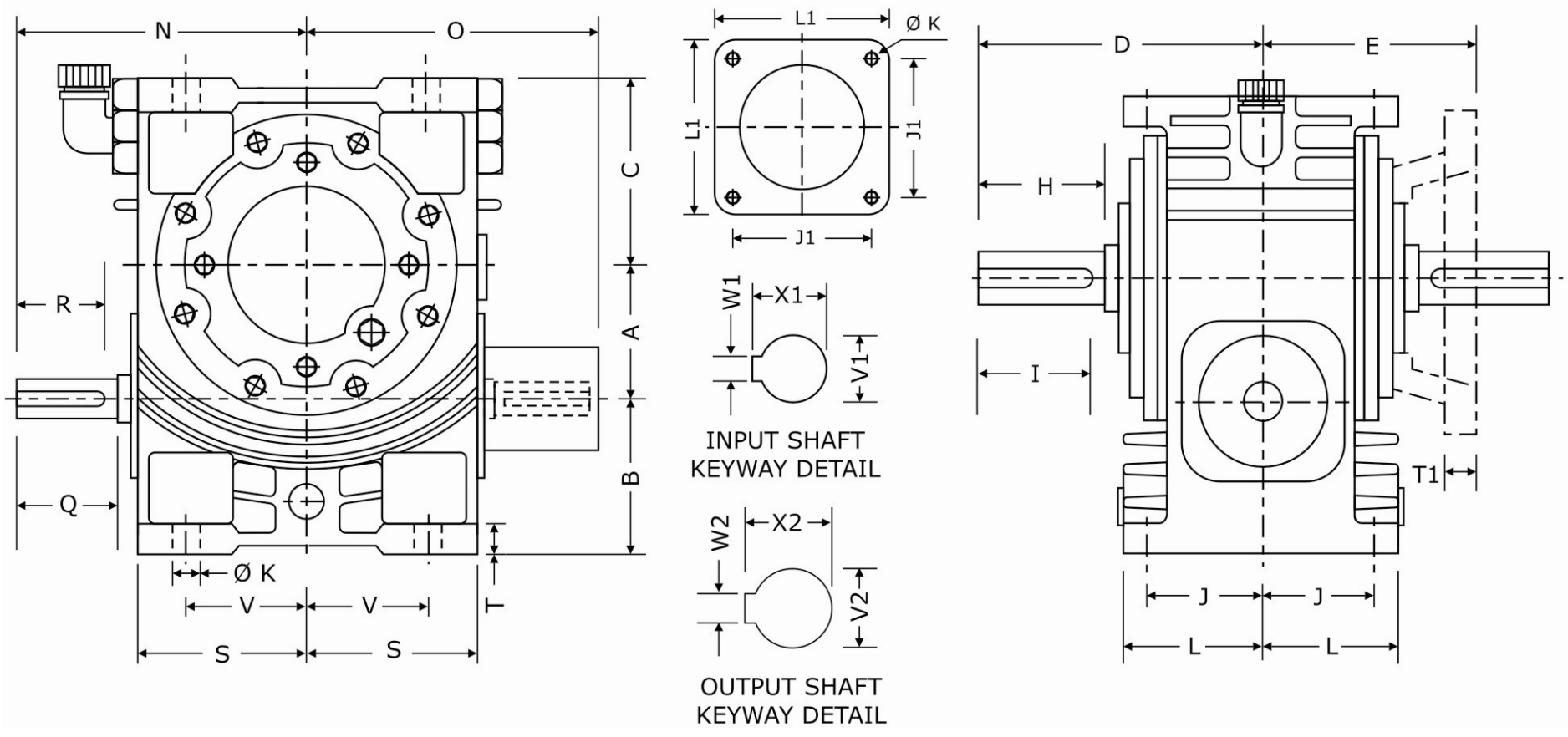
SIZE	OVERALL DETAILS								FIXING DETAILS								SHAFT DETAILS									
	A	B	C	D	F	N	O	P	J	K	L	M	V	S	U	T	Q	R	X1	W1	V1	H	I	X2	W2	V2
1.75	44.5	66.7	73	110	57	120	120	72	62.5	10	74	29	65	78	47	18	41	38	19	6	16	43	40	22	6	19
2.0	50.8	70.7	78.2	123	57	135	135	79.5	59	12	72	30	76.5	64	92.5	15	45	40	19	6	16	58	52	28	6	25
2.5	63.5	84	96.5	149	77	167	167	104	71.5	12	89	35	104.5	125	67.5	18	55	50	22	6	19	60	57	36	8	32
3.0	16.2	111.4	112.4	152.5	80.5	180	185	115	80.5	14	92.5	35	109	127.5	64.5	20	60	57	25	6	22	60	55	36	8	32
3.5	88.9	110	120.5	181	106	207.5	233	127	95	14	116	47	127.5	142.5	66.5	26	72	65	29	6	26	75	70	43	10	38

RAM ADAPTABLE VERTICAL GEAR BOX



SIZE	OVERALL DETAILS										FIXING DETAILS							SHAFT DETAILS									
	A	B	C	D	F	E	G	N	O	P	J1	J2	K	L	V	S	T	Q	R	X1	W1	V1	H	I	X2	W2	V2
1.75	44.5	56.5	73	110	57	78	32	120	120	72	84	108	10	219	78	90.5	15	41	38	19	6	16	43	40	22	6	19
2.0	50.8	67	78.2	123	57	82	41	135	135	79.5	84.5	126.5	10.5	232	80	91.5	20	45	40	19	6	16	58	52	28	6	25
2.5	63.5	82	96.5	149	77	102	47	167	167	104	108.5	153.5	11	287	107.5	120	25	55	50	22	6	19	60	57	36	8	32
3.0	76.2	111.4	112.4	152.5	80.5	95.5	57	180	185	115	111.5	187.5	14	336	102.5	120	23	60	57	25	6	22	60	55	36	8	32
3.5	88.9	96.6	120.5	181	106	113	68	207.5	233	127	124	188.9	14	351	116	136	24	72	65	29	6	26	75	70	43	10	38

RAM UNIVERSAL MOUNTING (RU)



SIZE	OVERALL DETAILS							FIXING DETAILS									SHAFT DETAILS									
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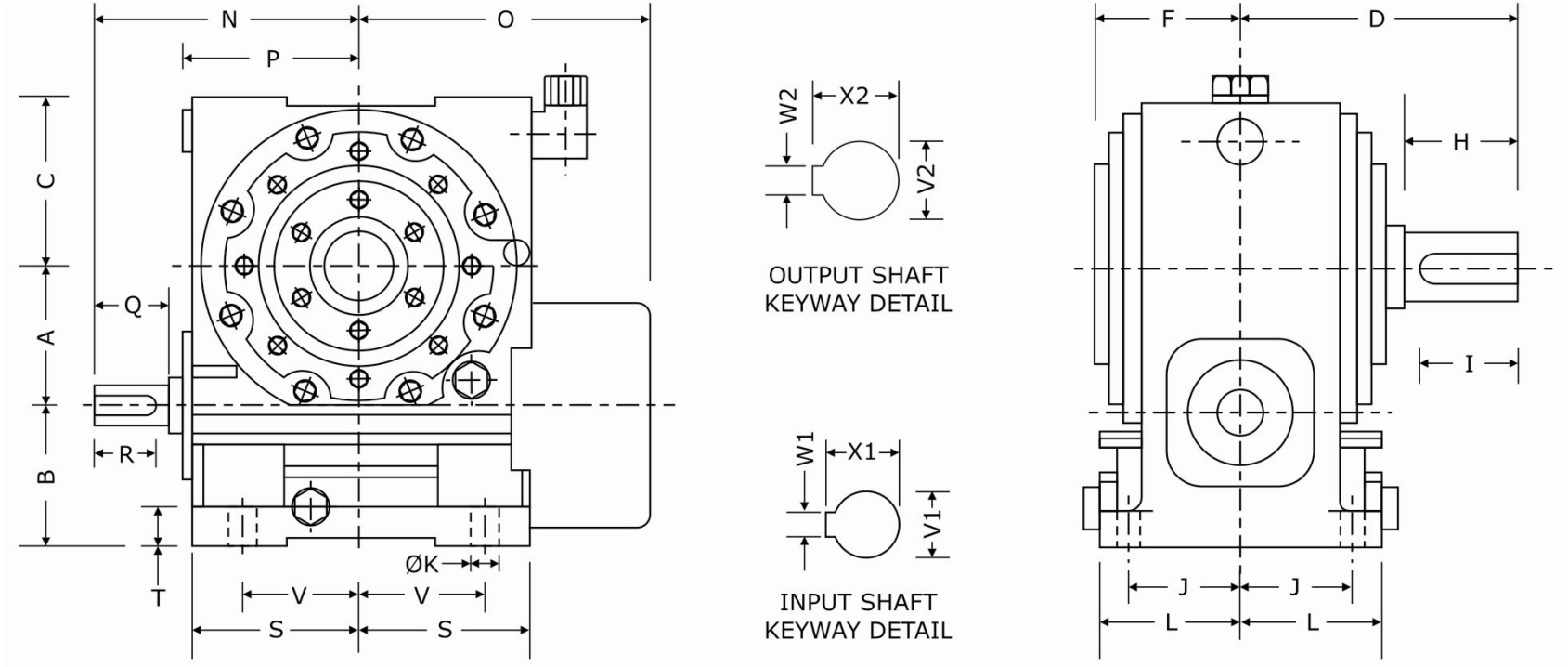
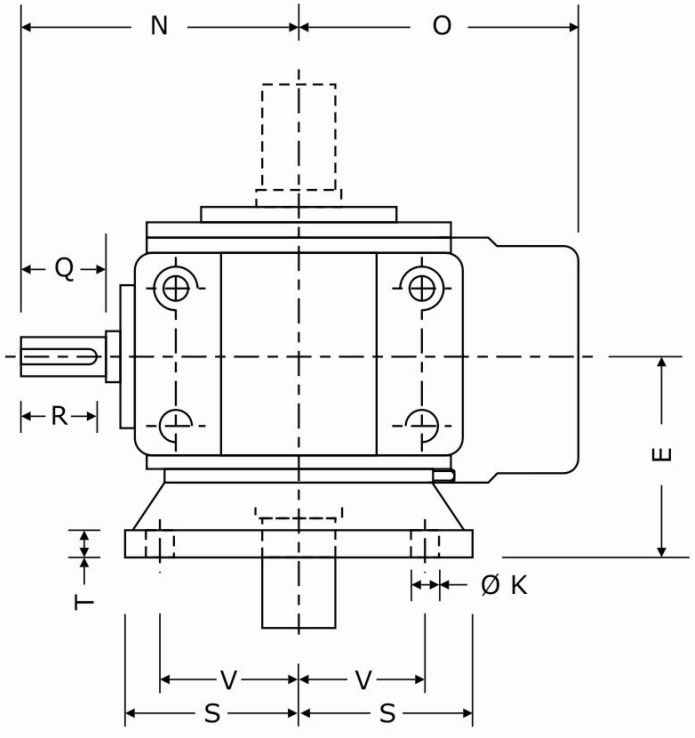
2.25	57.15	70	85	136	100	142	142	52.5	11	66	52.5	76	14	120	150	14	50	45	25	6	22	60	55	29	8	25
3.0	76.2	96	105	152	125	165	165	80	14	97.5	70	92.5	20	200	240	16	50	45	29	8	25	75	70	42	8	38

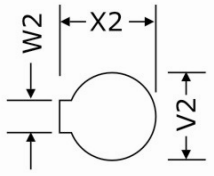
RAM UNIVERSAL MOUNTING (RU)



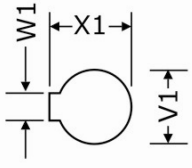
SIZE	OVERALL DETAILS								FIXING DETAILS						SHAFT DETAILS									
	A	B	C	D	F	N	O	P	J	K	L	V	S	T	Q	R	X1	W1	V1	H	I	X2	W2	V2
3.5	88.9	105	110	200	105	200	210	130	97	18	120	119	142	22	65	60	29	8	25	90	85	45	10	40
4.0	101.6	108	120.4	215	110.5	208.5	217	137.5	80	18	100	90	125	25	60	58	40	10	35	90	85	50	10	45
5.0	127	118	145	247	127.5	238.5	254.5	168.5	105	20	127.5	123	153.5	30	60	58	40	10	35	100	95	57	14	50
6.0	152.4	127	175.6	253	117	280.5	280.5	192.5	120.5	23	151	133	177.5	33	75	72	43	10	38	110	104	66	16	58
7.0	177.8	146	200.2	287	160	311	345	222	133	23	170	153	200	36	82	79	43.5	12	40	130	127	69.5	18	65
8.0	203.2	146	224.8	312	175	342	368	255	133	27	170	171.5	220	40	88	85	49	14	45	140	137	75	20	70

RAM UNIVERSAL MOUNTING (RU)

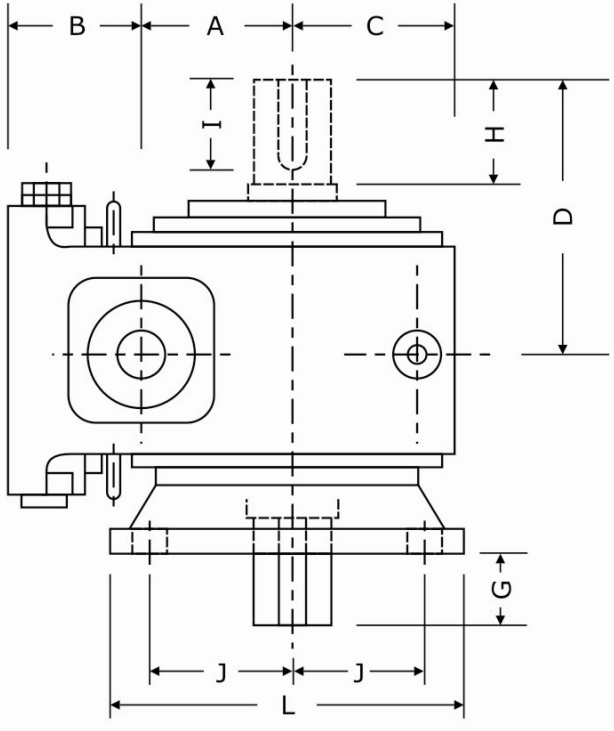




OUTPUT SHAFT
KEYWAY DETAIL

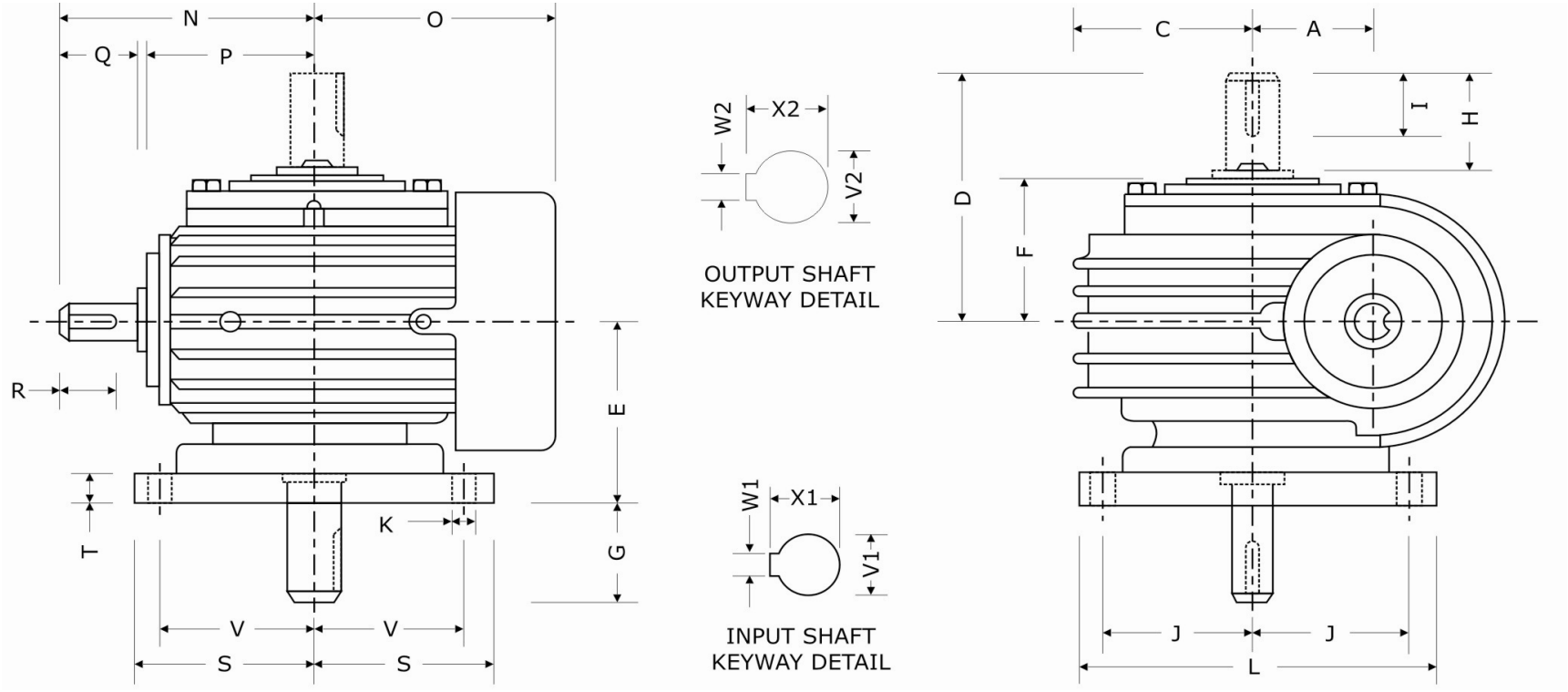


INPUT SHAFT
KEYWAY DETAIL



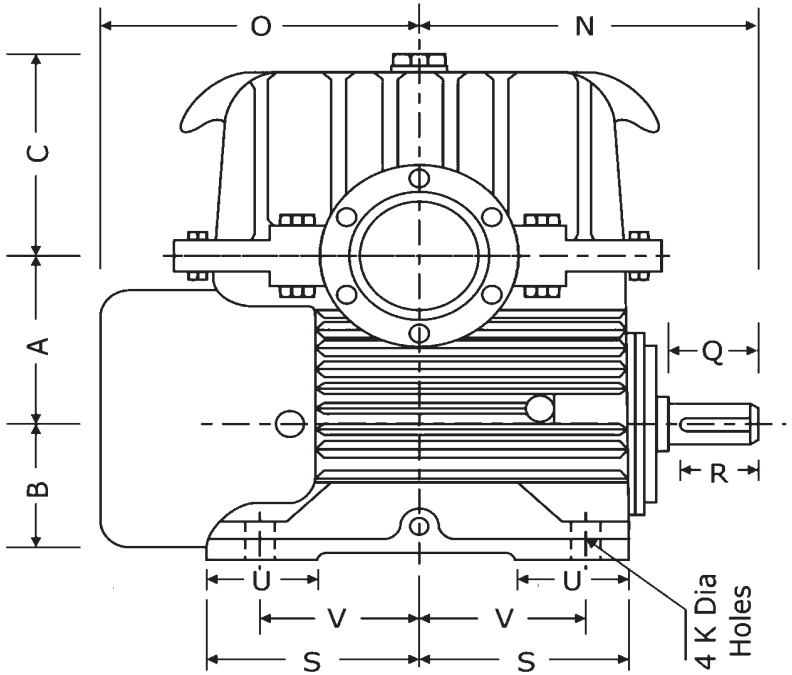
SIZE	OVERALL DETAILS								FIXING DETAILS						SHAFT DETAILS									
	A	B	C	D	E	G	N	O	J	K	L	V	S	T	Q	R	X1	W1	V1	H	I	X2	W2	V2
4.0	101.6	108	140	215	147.5	67.5	208.5	217	117.5	17	280	117.5	140	23	60	58	40	10	35	90	85	50	10	45
5.0	127	118	160	247	166	81	239	255	132.5	19	320	132.5	160	26	60	58	40	10	35	100	95	57	14	50
6.0	152.4	127	175	253	159	94	280.5	280.5	135	21	350	135	175	24	75	72	43	10	38	110	104	66	16	58
7.0	177.8	146	200.2	287	200	87	311	345	160	27	400	160	200	40	82	79	43.5	12	40	130	127	69.5	18	65
8.0	203.2	146	224.8	312	220	92	342	368	180	27	440	180	220	40	88	85	49	14	45	140	137	75	20	70

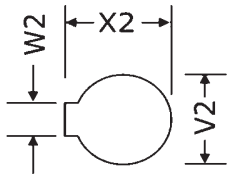
RAM FOOT MOUNTED UNDER VERTICAL (FMV)



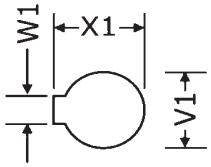
SIZE	OVERALL DETAILS									FIXING DETAILS						SHAFT DETAILS									
	A	C	D	F	E	G	N	O	P	J	K	L	V	S	T	Q	R	X1	W1	V1	H	I	X2	W2	V2
7.0	177.8	222	298	166	200	91	311	301	226	160	26	400	160	200	40	80	78	51	12	45	120	110	69.5	18	65
8.0	203.2	244	311	172	220	92	342	342	251	180	26	440	180	220	45	85	80	51	12	45	130	120	75	20	70
9.0	228.6	272	343	180	240	86	375	347	277	205	26	490	205	245	50	95	90	54	14	50	131	125	80	20	75
10.0	254	320	375	202	260	94	450	401	232	260	33	560	260	280	55	115	100	59.5	16	55	188	170	91	22	85
12.0	304.8	350	413	216	280	107	4850	431	357	317.5	33	620	317.5	310	60	115	110	64.5	18	60	170	165	100.5	25	95

RAM FOOT MOUNTED UNDER DRIVEN (FMU)

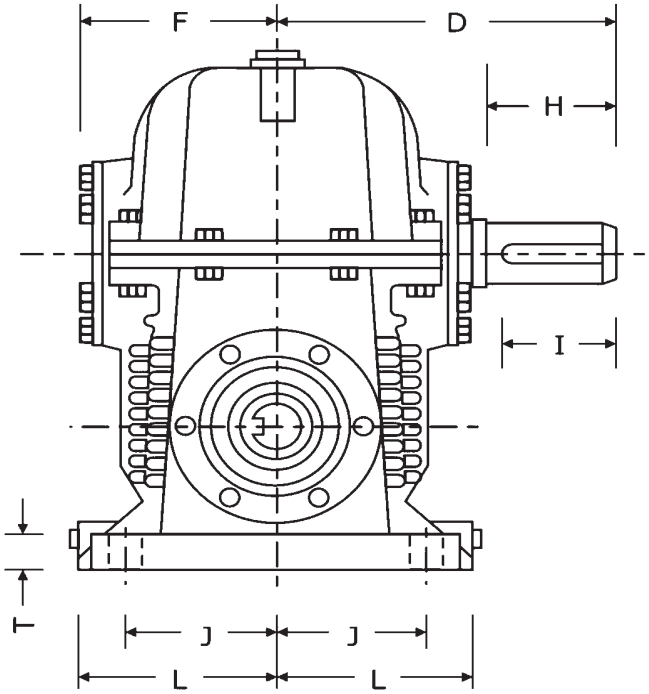




OUTPUT SHAFT
KEYWAY DETAIL



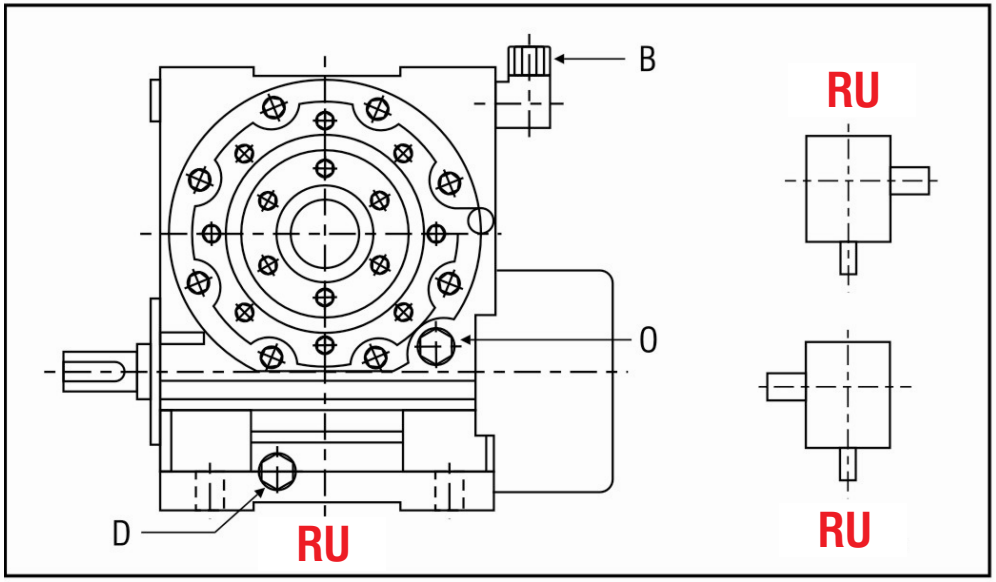
INPUT SHAFT
KEYWAY DETAIL

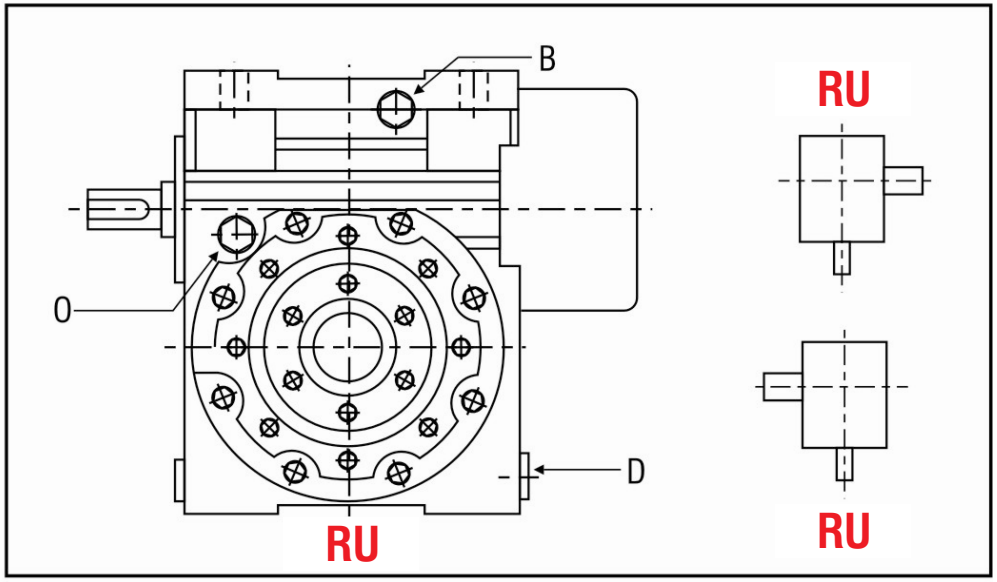


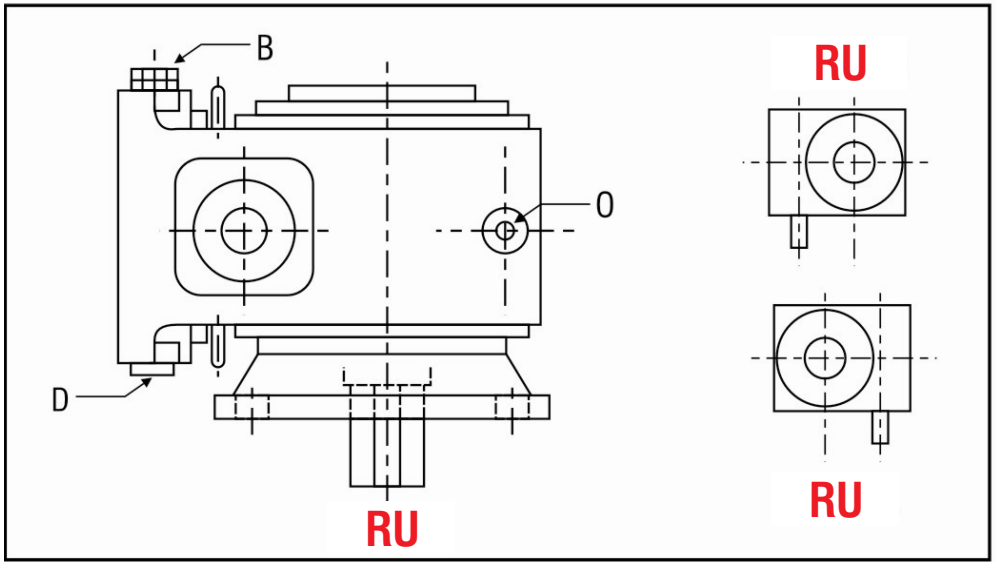
SIZE	OVERALL DETAILS							FIXING DETAILS							SHAFT DETAILS									
	A	B	C	D	F	N	O	J	K	L	V	S	U	T	Q	R	X1	W1	V1	H	I	X2	W2	V2
7.0	177.8	146	210	298	162	318	292	133	27	162	152	206	95	25	80	78	51	12	45	120	110	69.5	18	65
8.0	203.2	146	248	316	186	342	392	135	31	172	170	225	101	41	85	80	51	12	45	130	120	75	20	70
9.0	228.6	159	264	343	194	387	372	155	27	187	215	254	108	28	95	90	54	14	50	131	125	80	20	75
10.0	254	172	295	375	214	425	381	180	33	210	216	267	117	30	115	100	59.5	16	55	188	170	91	22	85
12.0	304.8	197	352	481	235	495	457	185	33	220	280	360	127	33	115	110	64.5	18	60	170	165	100.5	25	95

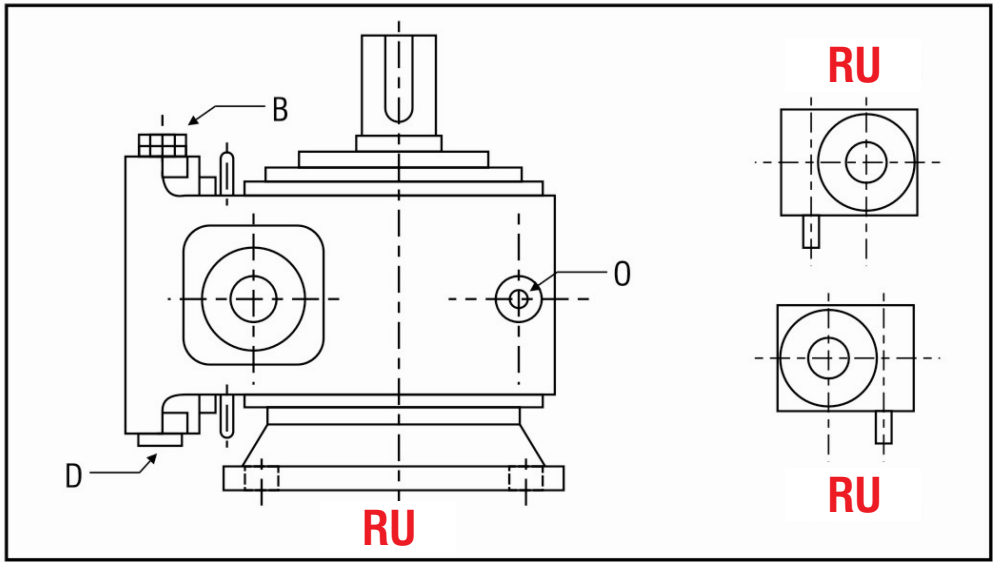
MOUNTING & HANDING POSITIONS

B = BREATHER PLUG D = DRAIN PLUG O = OIL LEVEL INDICATOR









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