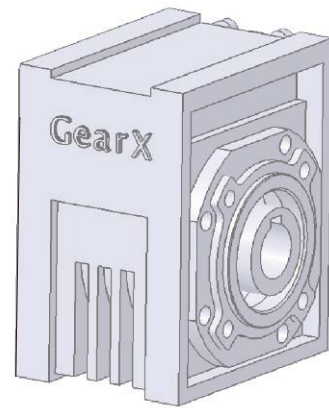
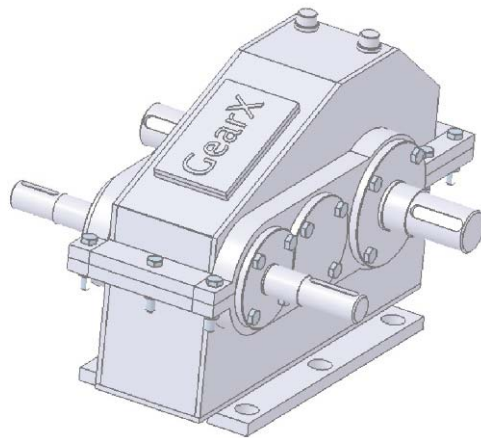
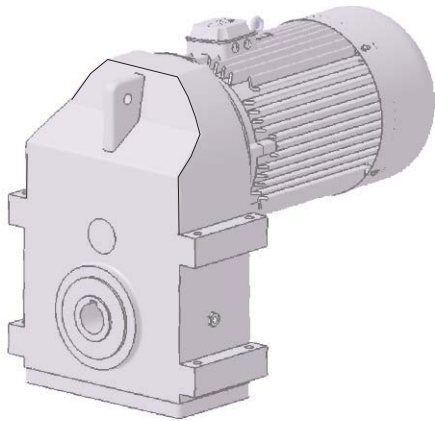




GearX



Geared Brake Motor | Crane Duty Gear Box  
EOT Crane Wheel Assembly | Contract Manufacturing

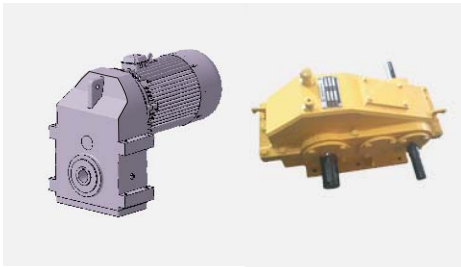
## About Us :

M/s Gearx Manufacturing is leading manufacturing company in all types of conventional machining activities & manufacturer of crane wheel assemblies. The company is having unit at S. No-29/1, Near shree control Chowk, Narhe Industria Area, Near Pune – Satara Highway, Pune – 411041.

The company basically manufactures various types of lead screws, shafts, cylindrical components which are required in general as well as automotive engineering industry.

We are expertise in various types of precision machining of components as per requirement of customers. We are not simply manufacturer of job work basis components. Our perspective is that of solution. We always play role as solution provider rather than service provider in each aspect of customer. This attitude with customer differentiates between regular suppliers & Gearx, hence we create business partner relations rather than customer – supplier relationship.

Apart from this, company has launched series of crane duty Gear Boxes & Geared Brake Motors. The series of gear boxes starts from HR 250. Those gear boxes are designed with good aesthetics as well as quality level is maintained superior as compared with current standards.



### GearX

Company has launched series of crane duty Gear Boxes & Geared Brake Motors. The series starts from HR 250.



### EOT CRANE WHEEL ASSEMBLY

Wheel assembly is the most important part of crane as it provides actual motion to crane. The assembly consists of various components including wheel, shaft, bearings, housing etc.



### CONTRACT MANUFACTURING

Gearx Manufacturing is having strong portfolio with regards to manufacturing of high precision mechanical manufacturing. Gearx has already performed good amount of work for high precise jobs such as lead screws.

**Definitions & Formulae: -****Input Speed: [ $n_1 \text{ min}^{-1}$ ]**

It is the speed at input shaft of gearbox related to the type of prime mover selected.

**Gear Ratio: [i]**

The ratio of angular speed of the initial or driving member of gearbox to the final or driven member.

From the data given in the catalogue, the value can be calculated using following formula:

$$i = \frac{n_1}{n_2}$$

**Output Speed: [ $n_2 \text{ min}^{-1}$ ]**

This is the gearbox output speed calculated using the formula given below:

$$n_2 = \frac{n_1}{i}$$

**Requested Torque: [ $M_{r2} \text{ Nm}$ ]**

This is the torque needed for the application and must be known when selecting a drive system. It can either be provided by the user or calculated according to the application data (if provided).

**Nominal Torque: [ $M_{n2} \text{ Nm}$ ]**

This is the output torque that can be transmitted by the gearbox according to input speed  $n_1$  and gear ratio  $i$ . It is calculated based on service with a continuous steady load corresponding to service factor equal to 1. This value is not given in the catalogue but can be calculated approximately with following formula:

$$M_{n2} = M_2 * sf$$

**Output Torque: [ $M_2 \text{ Nm}$ ]**

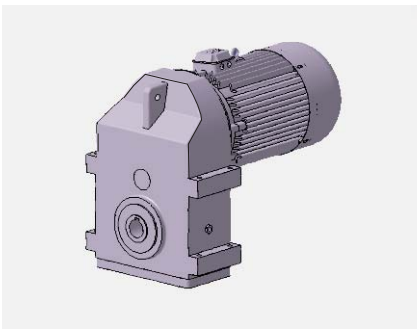
This is the gearbox's output torque. It is strictly related to power  $P_1$  of the prime mover installed, output rpm  $n_2$  and dynamic efficiency. It can be calculated with following formula:

$$M_2 = \frac{P_1 * 60000 * \eta}{2 * \pi * n_2}$$

**Efficiency:  $\eta$** 

Efficiency is calculated based on dynamic efficiency of the gearboxes.

On helical gearboxes GX, HR and VR the average efficiency is 90%.



Compactness in design. The weight of complete geared motor is substantially less as compared to conventional gear box.

Housing made from graded steel casting ensures rigidity during working & free from internal & external defects.

Elegant shape of casting causes better aesthetic approach.

- ▶ All gears are manufactured from alloy/ carbon steel duly heat treated with specified hardness.
- ▶ The gears are ground to ensure maximum tooth contact which decreases noise level.
- ▶ Motors used are suitable for variable frequency application & also used as directly without VFD application.
- ▶ Proper quantity of synthetic graded oil has been used to ensure splash lubrication during operation of geared motor.
- ▶ Installation & mounting of geared motor is easy based on hollow shaft & torque arm method.
- ▶ Various types of reduction ratios are available for different horse powers for different class of duty.
- ▶ Geared Motors are suitable for Single Girder Cranes for Long Travel & Double Girder Crane for Cross Travel & Long Travel application.

#### Questionnaire for Ordering a Gearbox / Geared Brake Motor:-

1. Horse Power of drive & RPM
2. RPM of Input & Output
3. Configuration: horizontal / vertical
4. Atmosphere: Dusty / Clean / Hot etc.
5. Hours of Service
6. Extension of input and output shaft.

#### Note:-

6P = 960 RPM

8P = 750 RPM

All ratings considered for Class II Duty.

For Class III- Reduce 20 % of Rated HP

For Class IV- Reduce 30 % of Rated HP

$P_1$ (KW)	$n_2$ $\text{min}^{-1}$	$i$	$M_2$ Nm	sf	Model	Mounting Flange
<b>0.37</b>						
(1400 $\text{min}^{-1}$ )	42	33.8	84.12	4.2	Gx1442	B5
	47	30.6	75.18	4.7	Gx1442	B5
	53	26	66.66	5.5	GX1442	B5
	59	24.5	59.89	6.14	GX1442	B5
	70	20.5	50.47	7.5	GX1442	B5
	87	16.5	40.61	9.3	GX1442	B5
	99	14.5	35.69	10.5	GX1442	B5
	118	12.2	29.94	12.2	GX1442	B5
	138	10.4	25.60	13.8	GX1442	B5
	193	7.48	18.31	17.4	GX1442	B5
	21	65	168.25	12	GX1723	B5
	23	60.2	153.62	13.4	GX1723	B5
	25	56	141.33	14.8	GX1723	B5
	30	46	117.77	19.3	GX1723	B5
	36	38.2	98.15	36.4	GX1723	B5
23	60.6	153.62	21	Gx1953	B5	
26	52.5	135.89	24	Gx1953	B5	
30	46.5	117.77	34	Gx1953	B5	
35	40.2	100.95	44	Gx1953	B5	
39	35.8	90.60	53	GX1953	B5	

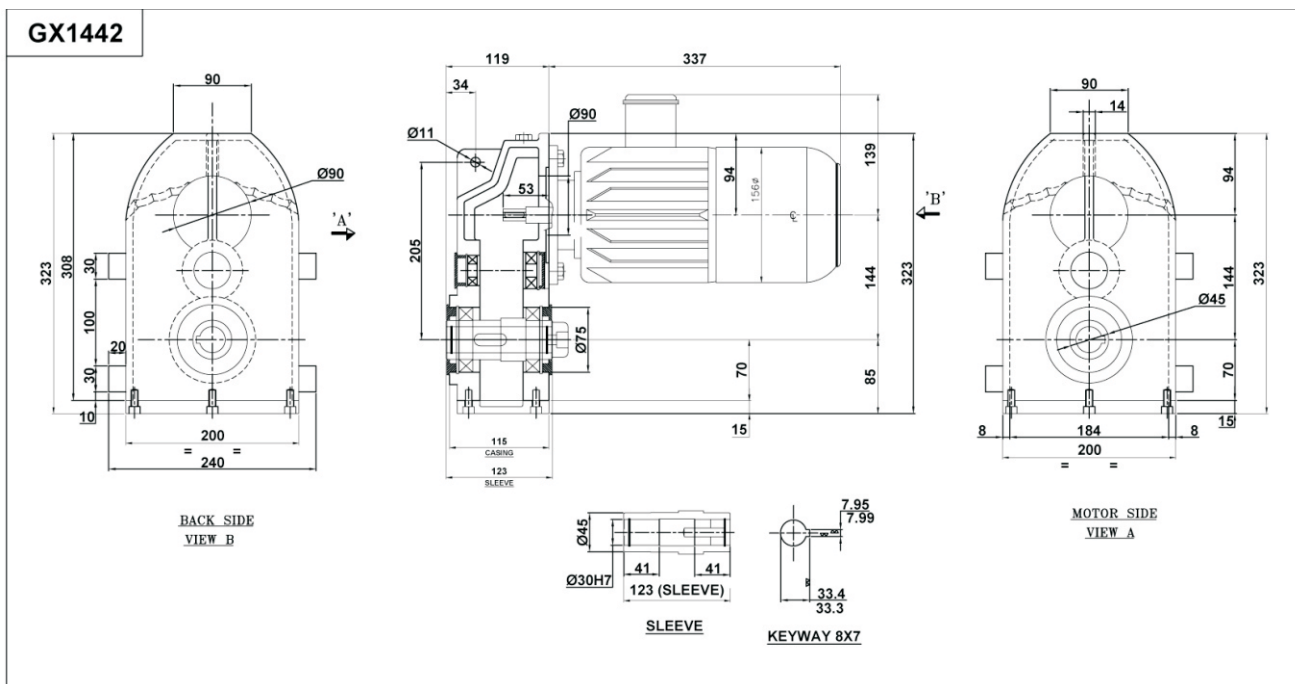
$P_1$ (KW)	$n_2$ $\text{min}^{-1}$	$i$	$M_2$ Nm	sf	Model	Mounting Flange
<b>0.55</b>						
(1400 $\text{min}^{-1}$ )	42	33.8	125.05	2.8	Gx1442	B5
	47	30.6	111.47	3.15	Gx1442	B5
	53	26	99.09	3.7	GX1442	B5
	59	24.5	89.01	4.0	GX1442	B5
	70	20.5	75.03	5.06	GX1442	B5
	87	16.5	60.36	6.25	GX1442	B5
	99	14.5	53.05	7.0	GX1442	B5
	118	12.2	44.50	8.1	GX1442	B5
	138	10.4	38.05	9.2	GX1442	B5
	193	7.48	27.21	11.6	GX1442	B5
	21	65	250.10	6.5	GX1723	B5
	23	60.2	228.35	7.2	GX1723	B5
	25	56	210.08	8.0	GX1723	B5
	30	46	175.07	10.5	GX1723	B5
	36	38.2	145.89	19.8	GX1723	B5
23	60.6	228.35	11.9	Gx1953	B5	
26	52.5	204.00	13.0	Gx1953	B5	
30	46.5	175.07	18.6	Gx1953	B5	
35	40.2	150.06	24.2	Gx1953	B5	
39	35.8	134.66	28.0	GX1953	B5	

$P_1$ (KW)	$n_2$ $\text{min}^{-1}$	$i$	$M_2$ Nm	sf	Model	Mounting Flange
<b>0.75</b>						
(1400 $\text{min}^{-1}$ )	42	33.8	170.5232	2.1	Gx1442	B5
	47	30.6	152.3824	2.36	GX1442	B5
	53	26	135.1316	2.7	GX1442	B5
	59	24.5	121.3894	3.07	GX1442	B5
	70	20.5	102.3139	3.7	GX1442	B5
	87	16.5	82.32152	4.7	GX1442	B5
	99	14.5	72.34316	5.3	GX1442	B5
	118	12.2	60.69468	6.1	GX1442	B5
	138	10.4	51.89835	6.9	GX1442	B5
	193	7.48	37.10867	8.7	GX1442	B5
	21	65	341.0463	4.2	GX1723	B5
	23	60.2	311.3901	4.7	GX1723	B5
	25	56	286.4789	5.2	GX1723	B5
	30	46	238.7324	6.8	GX1723	B5
	36	38.2	198.9437	12.8	GX1723	B5
	23	60.6	311.3901	7.7	Gx1953	B5
	26	52.5	275.4605	8.3	GX1953	B5
	30	46.5	238.7324	12.1	GX1953	B5
	35	40.2	204.6278	15.7	Gx1953	B5
	39	35.8	183.6403	18.7	GX1953	B5

$P_1$ (KW)	$n_2$ $\text{min}^{-1}$	$i$	$M_2$ Nm	sf	Model	Mounting Flange
<b>1.1</b>						
(1400 $\text{min}^{-1}$ )	42	33.8	250.1006	1.4	Gx1442	B5
	47	30.6	223.4942	1.57	GX1442	B5
	53	26	198.1929	1.8	GX1442	B5
	59	24.5	178.0377	2.04	GX1442	B5
	70	20.5	150.0604	2.5	GX1442	B5
	87	16.5	120.7382	3.1	GX1442	B5
	99	14.5	106.1033	3.52	GX1442	B5
	118	12.2	89.01887	4.08	GX1442	B5
	138	10.4	76.11758	4.6	GX1442	B5
	193	7.48	54.42604	5.8	GX1442	B5
	21	65	500.2012	2.4	GX1723	B5
	23	60.2	456.7055	2.5	GX1723	B5
	25	56	420.169	2.8	GX1723	B5
	30	46	350.1409	3.7	GX1723	B5
	36	38.2	291.7841	7	GX1723	B5
	23	60.6	456.7055	4.2	Gx1953	B5
	26	52.5	404.0087	4.6	Gx1953	B5
	30	46.5	350.1409	6.5	Gx1953	B5
	35	40.2	300.1207	8.5	Gx1953	B5
	39	35.8	269.3391	10.2	GX1953	B5

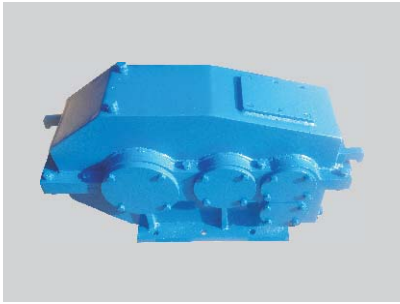
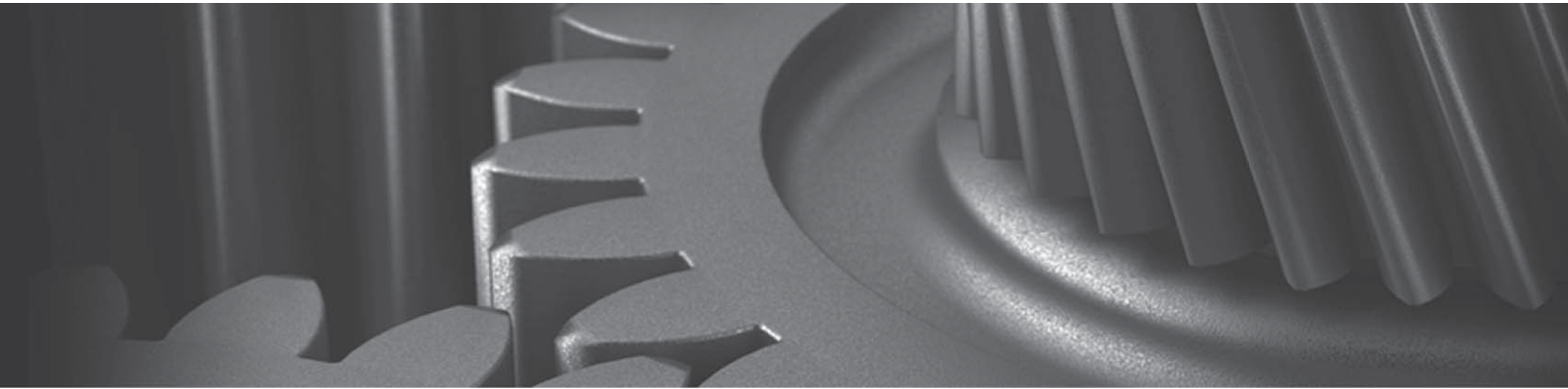
P <sub>1</sub> (KW)	n <sub>2</sub> min <sup>-1</sup>	i	M <sub>2</sub> Nm	sf	Model	Mounting Flange
<b>1.5</b>						
(1400min <sup>-1</sup> )	21	65	682.0926	1.6	GX1723	B5
	23	60.2	622.7802	1.7	GX1723	B5
	25	56	572.9578	1.8	GX1723	B5
	30	46	477.4648	2.4	GX1723	B5
	36	38.2	397.8874	4.5	GX1723	B5
	23	60.6	622.7802	2.7	Gx1953	B5
	26	52.5	550.921	3	Gx1953	B5
	30	46.5	4774648	4.2	Gx1953	B5
	35	40.2	409.2556	5.5	Gx1953	B5
	39	35.8	367.2806	6.6	GX1953	B5

P <sub>1</sub> (KW)	n <sub>2</sub> min <sup>-1</sup>	i	M <sub>2</sub> Nm	sf	Model	Mounting Flange
<b>2.2</b>						
(1400min <sup>-1</sup> )	23	60.6	913.411	1.5	Gx1953	B5
	26	52.5	808.0174	1.8	Gx1953	B5
	30	46.5	700.2817	2.3	Gx1953	B5
	35	40.2	600.2415	3	Gx1953	B5
	39	35.8	538.6783	3.6	GX1953	B5









In the crane to achieve correct speed of all three types of motions viz hoisting , cross travel & long travel Gear box plays significant role.

Gearx manufactures various types of conventional crane duty gear boxes as per customer requirement. The product is indigenously designed & with good aesthetics & with genuine raw material.

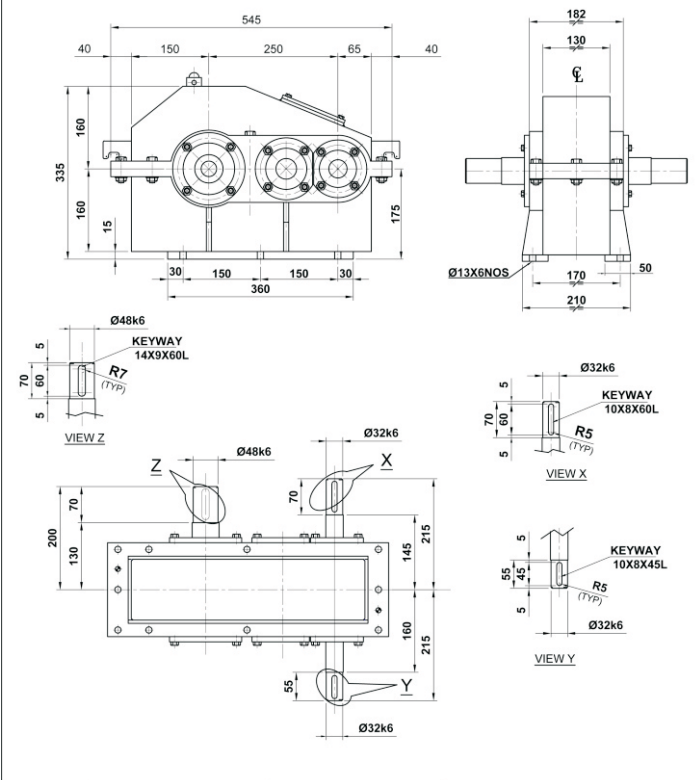
## THE SILENT FEATURES OF CONVENTIONAL GEAR BOX ARE AS BELOW:

- ▶ Main housing is fabricated from steel plates & stress relieved & machining is done with accuracy without affecting rigidity.
- ▶ Shafts for pinions & Gears are of alloy / carbon steel duly heat treated with specified hardness. Those are machined precisely to ensure maximum tooth contact.
- ▶ Antifriction ball bearings with suitable rating are used in gear box which provides prolong life during running of gear box.
- ▶ Sufficient capacity of oil is kept in reservoir to ensure splash lubrication for gears during running.
- ▶ Superior quality of oil seals are used to prevent leakage of oil.
- ▶ Various types of reduction ratios are available for different horse powers for different class of duty.

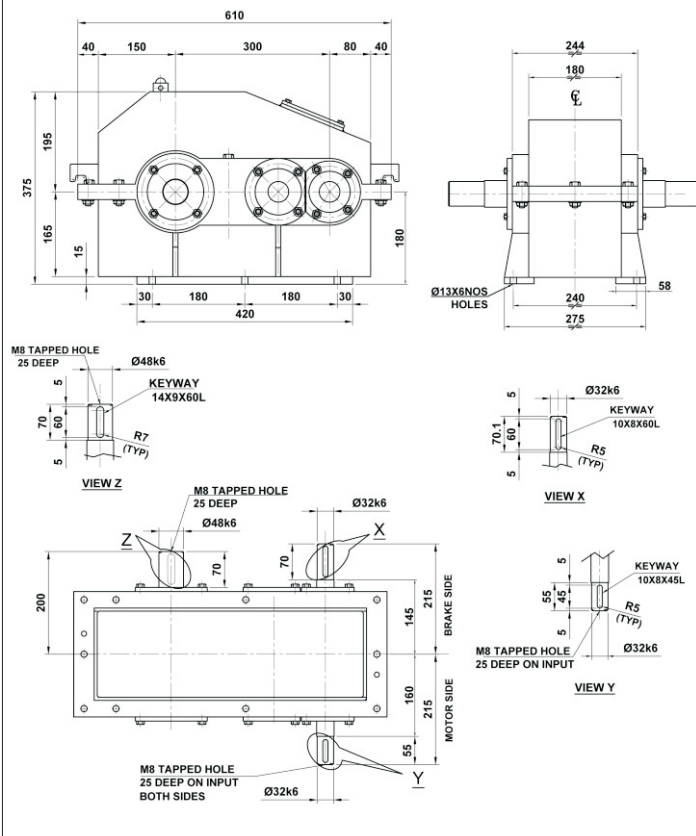
Model	P <sub>1</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 250</b>					
(960min <sup>-1</sup> )	17.5	8.23	116.6	1068.34	1.59
	14	10.35	92.8	1073.8	1.47
	11.8	12.64	75.9	1106.45	1.29
	9.6	15.75	60.95	1120.18	1.34
	8.6	20.5	46.83	1307.11	1.11
	7.5	23.34	41.1	1300.14	1.14
	6.4	26.91	35.67	1284.86	1.18
	5.3	31.5	30.48	1222.01	1.23
	4.8	36.86	26.04	1283.29	1.2
	4.3	40.17	23.90	1278.65	1.2
	3.8	43.76	21.94	1218.81	1.22
	3.2	48.57	19.77	1159.52	1.21
	3	52.56	18.26	1150.21	1.21
	(720min <sup>-1</sup> )	12.8	8.23	87.48	1036.96
10.6		10.35	69.57	1084.44	1.43
9.5		12.64	56.96	1186.91	1.18
7.5		15.75	45.71	1169.79	1.27
6.5		20.5	35.12	1318.67	1.26
5.4		23.34	30.85	1247.51	1.18
4.9		26.91	26.76	1302.7	1.14
4.3		31.5	22.86	1341.08	1.12
3.7		36.86	19.53	1349.28	1.16
3.2		40.17	17.92	1273.32	1.22
2.7		43.76	16.45	1166.57	1.27
2.1		48.57	14.82	1011.36	1.37
2.0		52.56	13.70	1038.68	1.34

Model	P <sub>1</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 300</b>					
(960min <sup>-1</sup> )	14.7	8.23	116.65	1202.6	2.19
	11.7	10.35	92.75	1205.58	2.02
	9.9	12.64	75.95	1247.27	1.76
	8.1	15.75	60.95	1261.18	1.84
	7.2	20.5	46.83	1474.32	1.52
	6.3	23.34	41.13	1453.37	1.57
	5.4	26.91	35.67	1437.43	1.7
	4.4	31.5	30.48	1378.68	1.62
	4.0	36.86	26.04	1477.61	1.47
	3.6	40.17	23.90	1430.49	1.52
	3.2	43.76	21.94	1397.28	1.49
	2.7	48.57	19.77	1294.8	1.66
	2.5	52.56	18.26	1327.97	1.62
	(720min <sup>-1</sup> )	10.7	8.23	87.48	1172.31
8.9		10.35	69.57	1217.59	1.97
8.0		12.64	56.96	1337.79	1.61
6.3		15.75	45.71	1307.66	1.75
5.4		20.5	35.12	1479.08	1.49
4.6		23.34	30.85	1408.48	1.6
4.1		26.91	26.76	1463.31	1.54
3.6		31.5	22.86	1495.66	1.56
3.1		36.86	19.53	1530.17	1.4
2.7		40.17	17.92	1427.83	1.5
2.2		43.76	16.45	1300.06	1.58
1.8		48.57	14.82	1153.08	1.84
1.6		52.56	13.70	1143.24	1.86

GEAR BOX/HR-250



GEAR BOX/HR-300



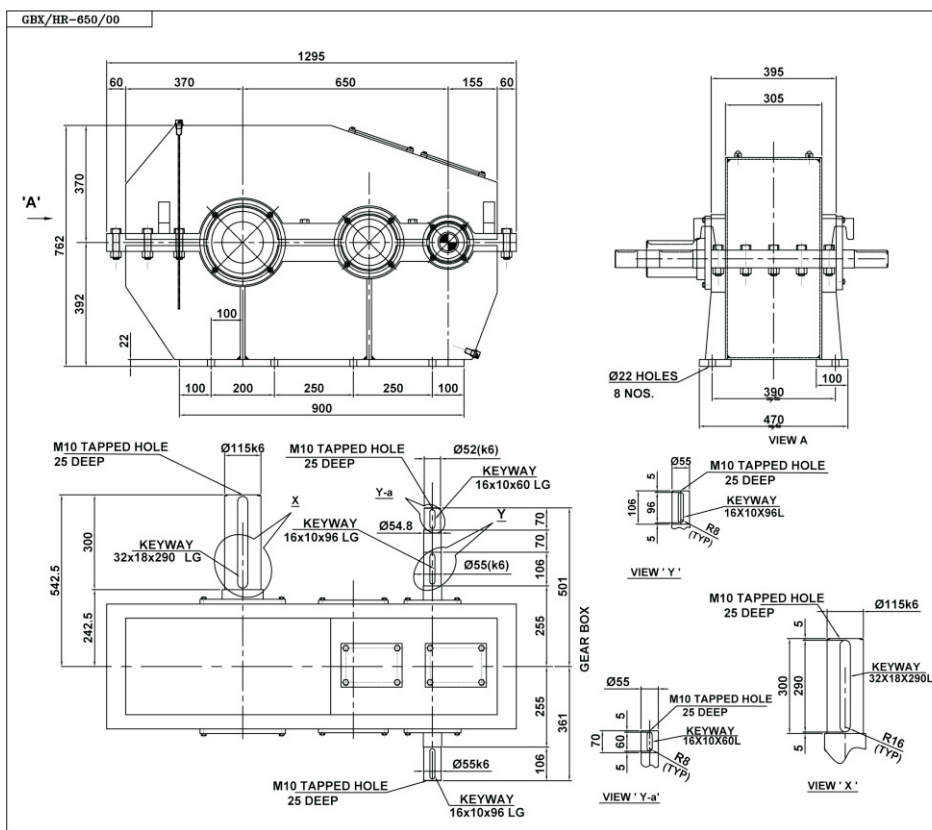
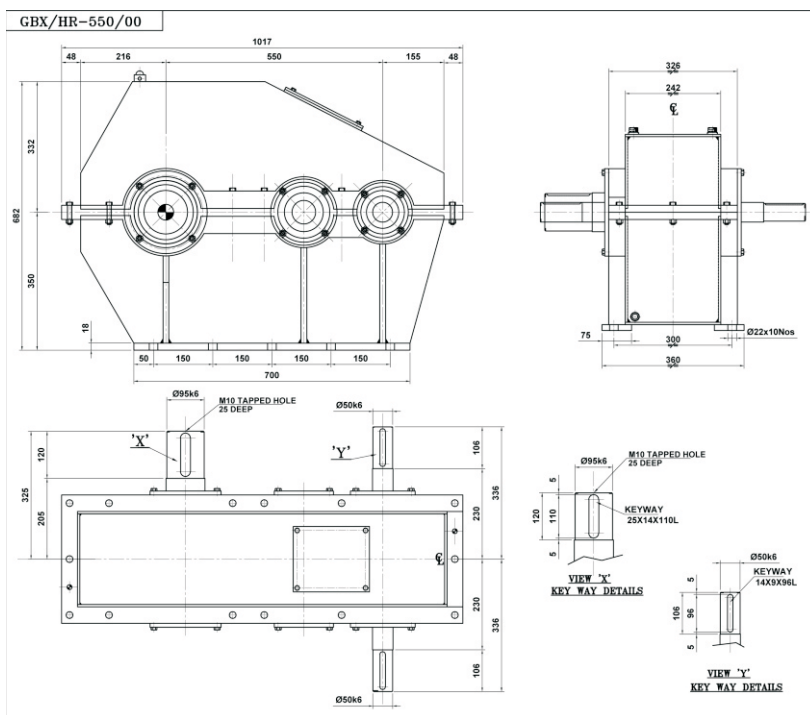
Model	P <sub>1</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 400</b>					
(960min <sup>-1</sup> )	55.00	8.23	116.65	3357.3	2.04
	46.0	10.35	92.75	3531.3	1.79
	40.0	12.64	75.95	3749.34	1.51
	35.0	15.75	60.95	4087.47	1.47
	31.0	20.5	46.83	4712.53	1.33
	28.0	23.34	41.13	4845.33	1.22
	25.3	26.91	35.67	5611.23	1.19
	22.0	31.5	30.48	2138.72	1.17
	20.2	36.86	26.04	5521.8	1.13
18.5	40.17	23.90	5510.19	1.13	
(720min <sup>-1</sup> )	43.0	8.23	87.48	3500.03	1.91
	38.0	10.35	69.57	3889.8	1.59
	32.0	12.64	56.96	4000.37	1.39
	27.0	15.75	45.71	4205.79	1.4
	25.0	20.5	35.12	5068.7	1.12
	22.0	23.34	30.85	5078.4	1.14
	19.8	26.91	26.76	5269.65	1.23
	17.0	31.5	22.86	5296.18	1.12
	15.9	36.86	19.53	5796.36	1.07
	14.8	40.17	17.92	5879.85	1.04

Model	P <sub>1</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 500</b>					
(960min <sup>-1</sup> )	130.0	8.23	116.65	7936.1	1.76
	110.0	10.35	92.75	8444.95	1.53
	95.0	12.64	75.95	8907.07	1.3
	78.0	15.75	60.95	9112.54	1.34
	57.0	20.5	46.83	8667.48	1.36
	51.0	23.34	41.13	8829.48	1.36
	47.0	26.91	35.67	9381.58	1.3
	43.0	31.5	30.48	10047.16	1.22
	(720min <sup>-1</sup> )	43.0	8.23	87.48	8546.57
38.0		10.35	69.57	9110.31	1.39
32.0		12.64	56.96	9188.35	1.23
27.0		15.75	45.71	9579.85	1.25
25.0		20.5	35.12	9123.66	1.26
22.0		23.34	30.85	9579.7	1.23
19.8		26.91	26.76	10246.54	1.17
17.0		31.5	22.86	10903.89	1.37



Model	P <sub>1</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 550</b>					
(960min <sup>-1</sup> )	162.0	8.23	116.65	9889.61	1.78
	137.0	10.35	92.75	10517.81	1.54
	119.0	12.64	75.95	11157.28	1.3
	97.0	15.75	60.95	11332.26	1.36
	70.0	20.5	46.83	10644.28	1.39
	63.0	23.34	41.13	10907.01	1.38
	58.0	26.91	35.67	11577.26	1.32
53.0	31.5	30.48	12383.71	1.24	
(720min <sup>-1</sup> )	131.0	8.23	87.48	10662.87	1.61
	111.0	10.35	69.57	11362.3	1.39
	91.0	12.64	56.96	11376.05	1.25
	76.0	15.75	45.71	11838.51	1.27
	56.0	20.5	35.12	11353.89	1.28
	51.0	23.34	30.85	11772.64	1.38
	48.0	26.91	26.76	12774.91	1.17
	43.0	31.5	22.86	13396.21	1.13

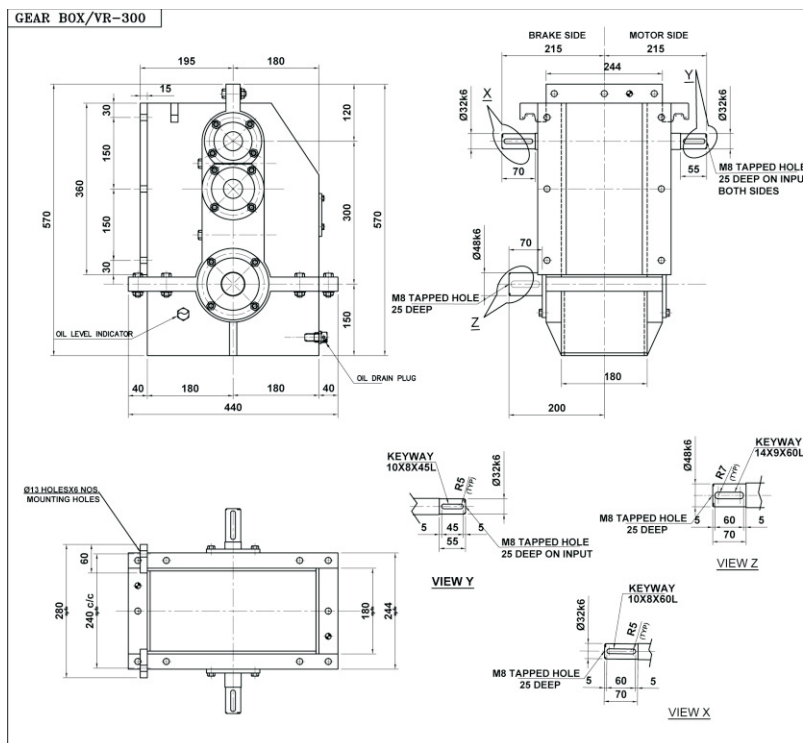
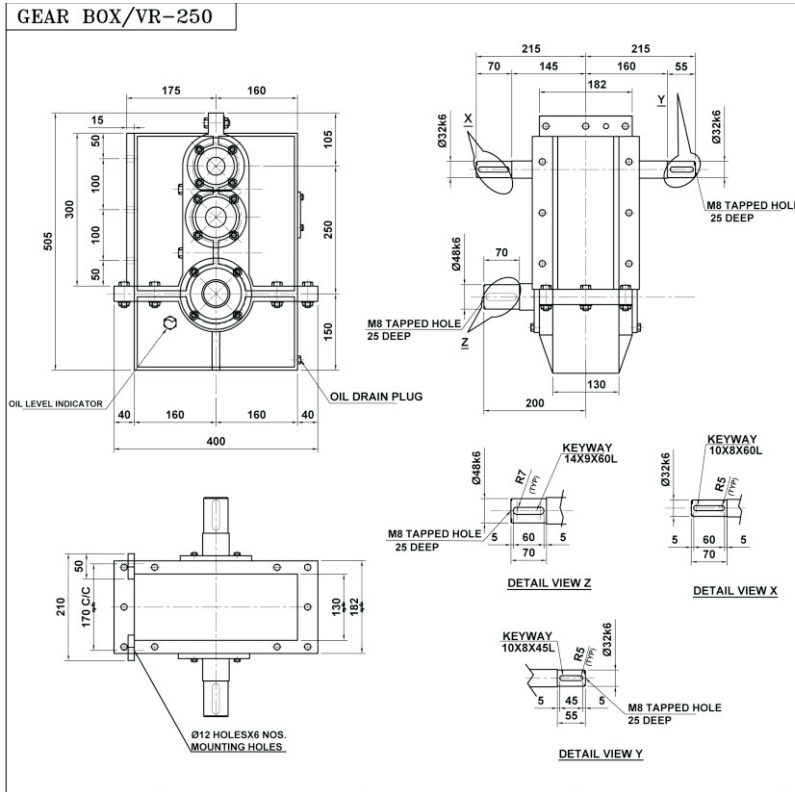
Model	P <sub>1</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 650</b>					
(960min <sup>-1</sup> )	255.0	8.23	116.65	15566.98	1.94
	212.0	10.35	92.75	16275.73	1.71
	183.0	12.64	75.95	17157.83	1.45
	153.0	15.75	60.95	17874.59	1.47
	138.0	20.5	46.83	20984.43	1.2
	125.0	23.34	41.13	21640.89	1.19
	205.0	8.23	87.48	16686.17	1.76
174.0	10.35	69.57	17811.17	1.52	
(720min <sup>-1</sup> )	148.5	12.64	56.96	18564.21	1.31
	123.0	15.75	45.71	19159.7	1.34
	111.0	20.5	35.12	22505.04	1.1
	100.0	23.34	30.85	23083.61	1.09



Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>VR 250</b>					
(960min <sup>-1</sup> )	6.4	15.75	61.0	747.7	2.02
	5.8	20.5	46.8	881.95	1.65
	5	23.34	41.1	865.64	1.72
	4.3	26.91	35.67	858.31	1.76
	3.6	31.5	30.48	841.16	1.81
	3.2	36.86	26.0	874.92	1.61
	2.9	40.17	23.90	864.1	1.63
	2.5	43.76	21.94	811.49	1.68
	2.1	48.57	19.77	756.57	1.85
2	52.56	18.26	779.74	1.64	
(720min <sup>-1</sup> )	5	15.75	45.71	778.85	1.91
	4.3	20.5	35.12	841.82	1.65
	3.6	23.34	30.85	831.01	1.77
	3.3	26.91	26.76	878.28	1.7
	2.3	31.5	22.86	716.54	2.1
	2.5	36.86	19.53	911.38	1.53
	2.1	40.17	17.92	834.3	1.67
	1.8	43.76	16.45	779.03	1.71
	1.4	48.57	14.82	672.51	2.06
	1.3	52.56	13.70	675.77	1.87

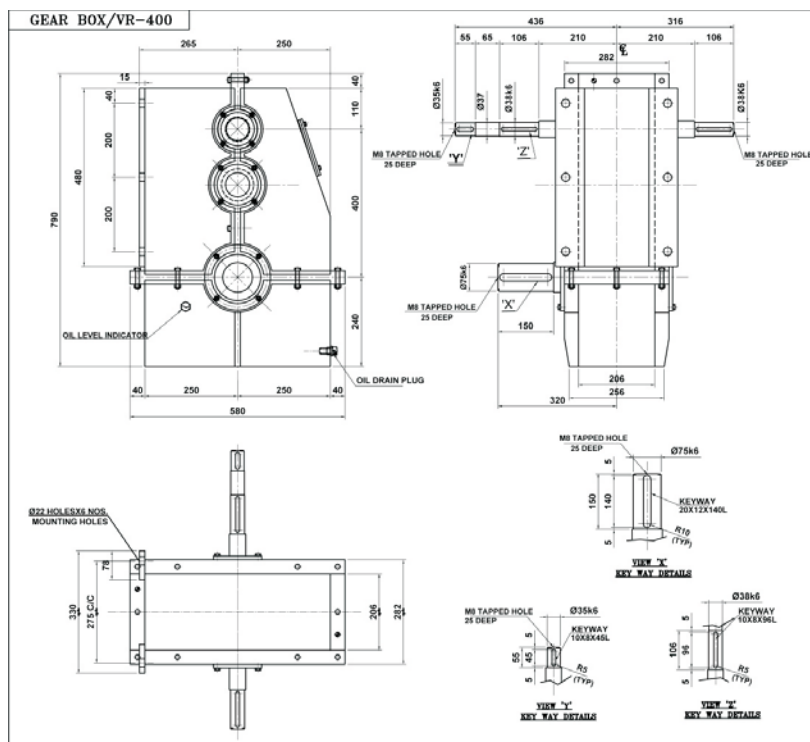
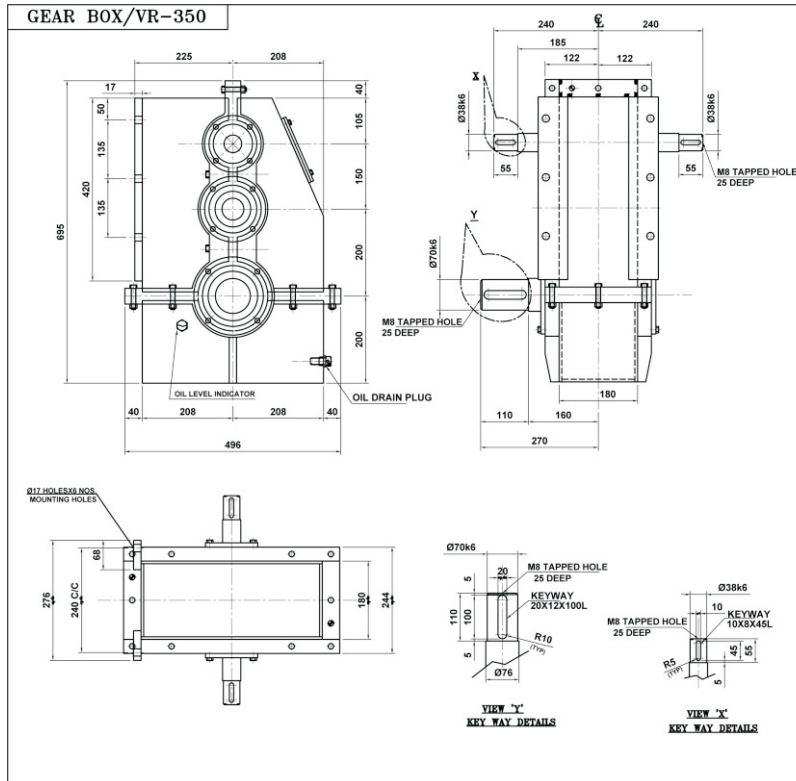
Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>VR 300</b>					
(960min <sup>-1</sup> )	8	15.75	61.0	934.62	2.49
	7.3	20.5	46.8	1110.05	2.02
	6.3	23.34	41.1	1090.7	2.1
	5.4	26.91	35.67	1077.88	2.23
	4.5	31.5	30.48	1051.45	2.16
	4	36.86	26.0	1093.65	1.98
	3.6	40.17	23.90	1072.68	2.02
	3.1	43.76	21.94	1006.24	2.06
	2.6	48.57	19.77	936.71	2.29
	2.5	52.56	18.26	974.67	1.88
(720min <sup>-1</sup> )	6.3	15.75	45.71	981.35	2.33
	5.4	20.5	35.12	1094.84	2.02
	4.5	23.34	30.85	1038.76	1.17
	4.1	26.91	26.76	1091.19	20.6
	3.6	31.5	22.86	1121.54	2.1
	3.1	36.86	19.53	1130.11	1.9
	2.6	40.17	17.92	1032.95	2.08
	2.2	43.76	16.45	952.14	2.16
	1.7	48.57	14.82	816.62	2.6
	1.6	52.56	13.70	831.72	2.18





Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>VR 350</b>					
(960min <sup>-1</sup> )	14.7	15.75	61.0	1717.36	2.51
	11.9	20.5	46.8	1809.53	2.3
	10.6	23.34	41.1	1835.15	2.31
	9.3	26.91	35.67	1856.35	2.32
	7.9	31.5	30.48	1845.87	2.35
	7.2	36.86	26.0	1968.58	2.04
	6.6	40.17	23.90	1966.57	2.04
	6	43.76	21.94	1947.57	1.75
	5.2	48.57	19.77	1873.42	2.12
4.8	52.56	18.26	1871.37	1.94	
(720min <sup>-1</sup> )	11.2	15.75	45.71	1744.62	2.43
	9.4	20.5	35.12	1905.83	2.14
	8	23.34	30.85	1846.69	2.31
	6.9	26.91	26.76	1836.39	2.31
	6	31.5	22.86	1869.24	2.28
	5.3	36.86	19.53	1932.12	2.05
	4.6	40.17	17.92	1827.52	2.17
	4.3	43.76	16.45	1861.01	1.8
	3.9	48.57	14.82	1873.42	2.09
	3.6	52.56	13.70	1871.37	1.92

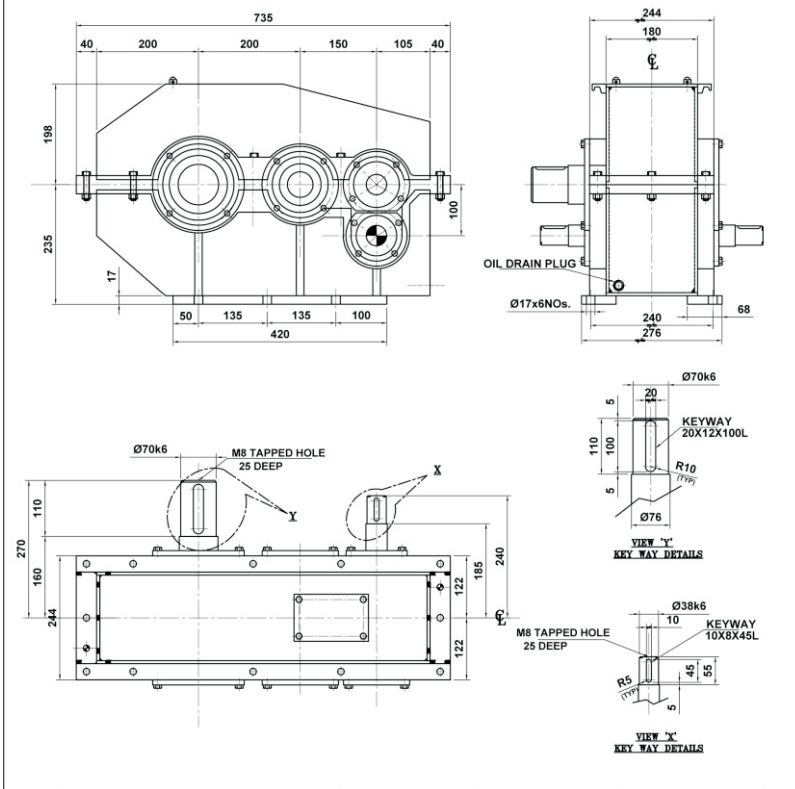
Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>VR 400</b>					
(960min <sup>-1</sup> )	21	15.75	61.0	2453.38	2.45
	18.6	20.5	46.8	2828.34	2.05
	16.8	23.34	41.1	2908.54	2.03
	15.2	26.91	35.67	3034.4	1.98
	13.2	31.5	30.48	3084.24	1.96
	21.1	36.86	26.0	5769.02	1.69
	11.1	40.17	23.90	3307.42	1.69
	10.4	43.76	21.94	3375.79	1.58
	16.2	15.75	45.71	2523.47	2.34
(720min <sup>-1</sup> )	15	20.5	35.12	3041.22	1.87
	13.2	23.34	30.85	3047.04	1.91
	11.9	26.91	26.76	3167.11	1.86
	10.2	31.5	22.86	3177.71	1.87
	9.5	36.86	19.53	3463.23	1.59
	8.9	40.17	17.92	3535.86	1.56
	8.1	43.76	16.45	3505.62	1.5



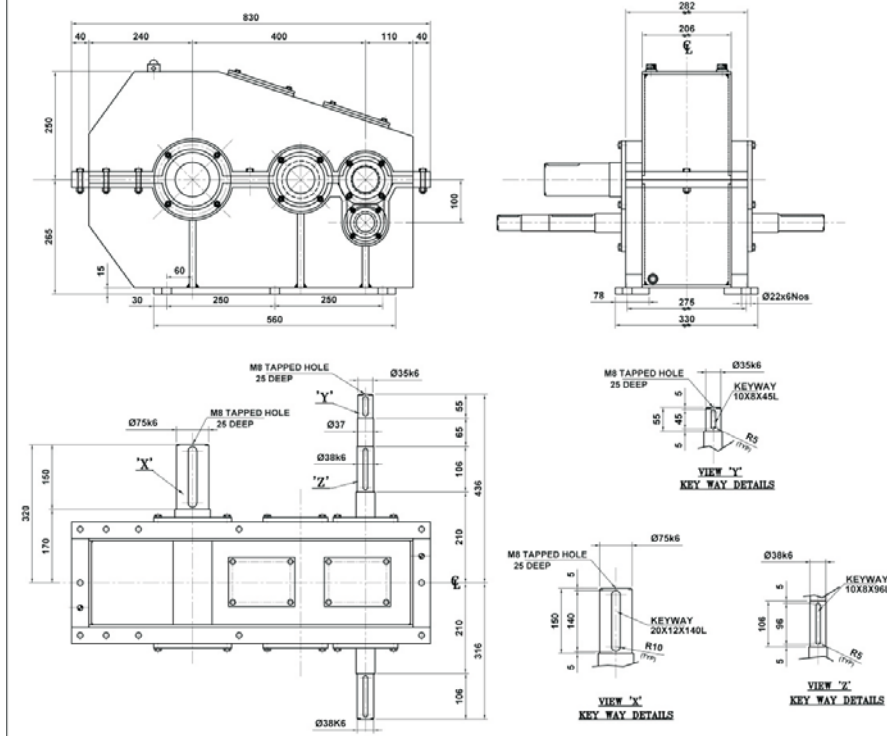
Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 3510</b>					
(960min <sup>-1</sup> )	15	40	24.0	4452.49	2.1
	12	50	19.2	4452.49	2
	10	63	15.2	4675.1	1.96
	8	80	12.00	4749.9	2.2
	7	90	10.67	4673.1	1.98
	6.2	105	9.1	4828.87	2.16
	5.2	124	7.74	4782.88	2.1
	4.7	142	6.76	4950.52	1.96
	4.2	160	6.00	4984.64	1.86
(720min <sup>-1</sup> )	12	40	18.00	4747.27	1.92
	10	50	14.40	4945.08	1.7
	8.3	63	11.43	5171.56	1.42
	6.5	80	9.00	5142.88	1.51
	5.6	90	8.00	4984.64	1.34
	5	105	6.86	5192.33	1.41
	4.2	124	5.81	5150.79	1.43
	3.7	142	5.07	5196.29	1.31
	3.2	160	4.50	5063.76	1.19

Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 4010</b>					
(960min <sup>-1</sup> )	20.5	40	24.0	6082.44	2.04
	17	50	19.2	6304.97	1.79
	14	63	15.2	6542.34	1.51
	11.3	80	12.00	6705.52	1.47
	10.2	90	10.67	6809.37	1.4
	9.2	105	9.1	7165.41	1.35
	8	124	7.74	7358.27	1.26
	6.9	142	6.76	7267.78	1.2
	5.8	160	6.00	6883.55	1.17
	(720min <sup>-1</sup> )	16.5	40	18.00	6527.5
13.5		50	14.40	6675.85	1.59
11		63	11.43	6853.88	1.39
9		80	9.00	7120.91	1.4
8.3		90	8.00	7387.94	1.12
7.3		105	6.86	7580.8	1.14
6.1		124	5.81	7480.91	1.23
5.5		142	5.07	7724.21	1.12
4.8		160	4.50	7595.64	1.07

GEAR BOX/HR-3510

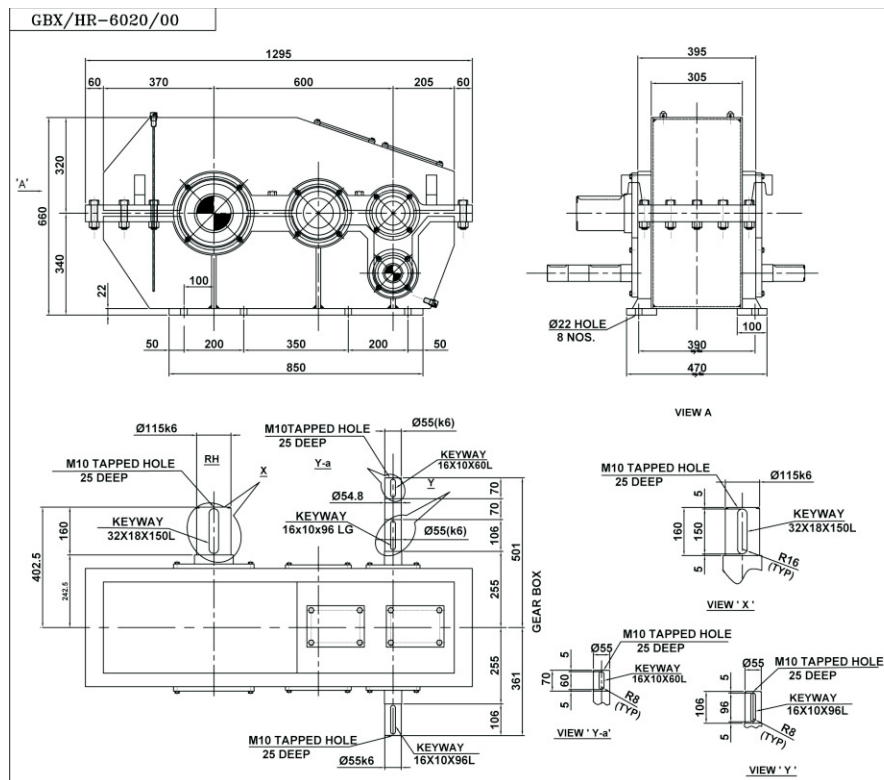
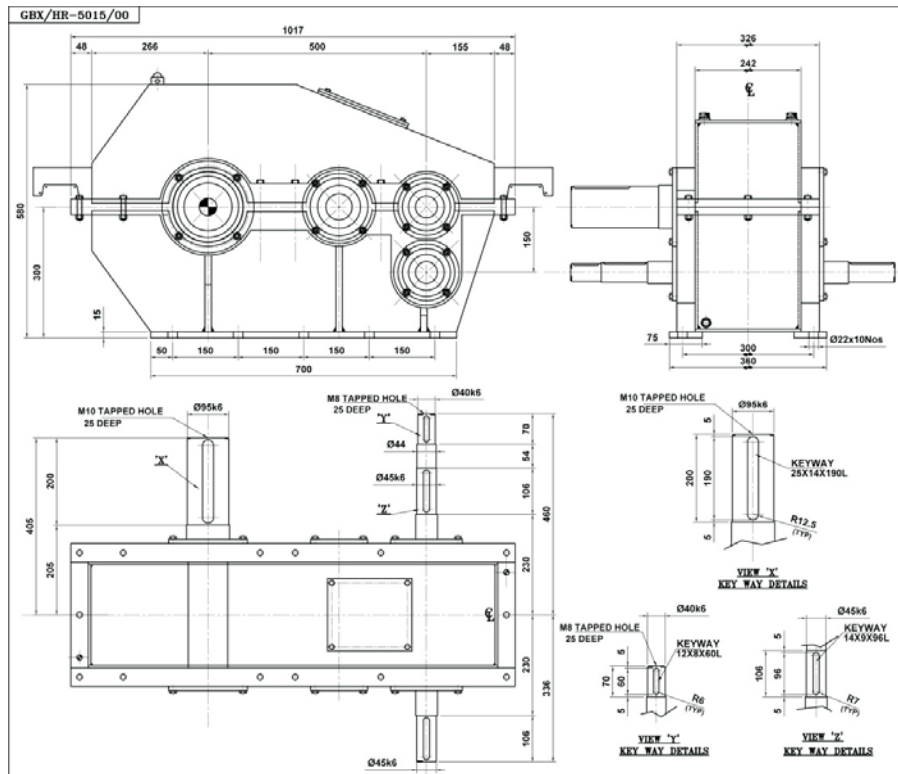


GBX/HR-4010/00



Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 5015</b>					
(960min <sup>-1</sup> )	42.5	40	24.0	12609.94	2.25
	35	50	19.2	12980.82	2.1
	29	63	15.2	13551.98	1.85
	23.5	80	12.00	13945.11	1.72
	20.8	90	10.67	13885.77	1.65
	19.4	105	9.1	15109.68	1.54
	15.2	124	7.74	13980.72	1.58
	13.6	142	6.76	13424.9	1.45
	12	160	6.00	14241.82	1.62
(720min <sup>-1</sup> )	33.5	40	18.00	13252.8	1.78
	28	50	14.40	13846.21	1.62
	23.4	63	11.43	14580.06	1.49
	19.4	80	9.00	15349.52	1.38
	17.2	90	8.00	15309.95	1.27
	15.8	105	6.86	16407.76	1.25
	13.8	124	5.81	16924.03	1.2
	11.8	142	5.07	16571.94	1.18
	10	160	4.50	15824.24	1.13

Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 6020</b>					
(960min <sup>-1</sup> )	80	40	24.0	23736.36	2.36
	67	50	19.2	24849.01	2.2
	56	63	15.2	26169.34	2.1
	45	80	12.00	26703.41	1.95
	40	90	10.67	26703.41	1.83
	35.5	105	9.1	27649.16	1.76
	31.5	124	7.74	28973.2	1.63
	27.5	142	6.76	28965.78	1.5
	24	160	6.00	28483.64	1.45
(720min <sup>-1</sup> )	62	40	18.00	24527.58	1.96
	52	50	14.40	25714.39	1.8
	43.5	63	11.43	27103.96	1.72
	36	80	9.00	28483.64	1.63
	31.5	90	8.00	28038.58	1.52
	28	105	6.86	29077.05	1.46
	24.5	124	5.81	30046.28	1.6
	21.5	142	5.07	30194.63	1.2
	19	160	4.50	30066.06	1.18



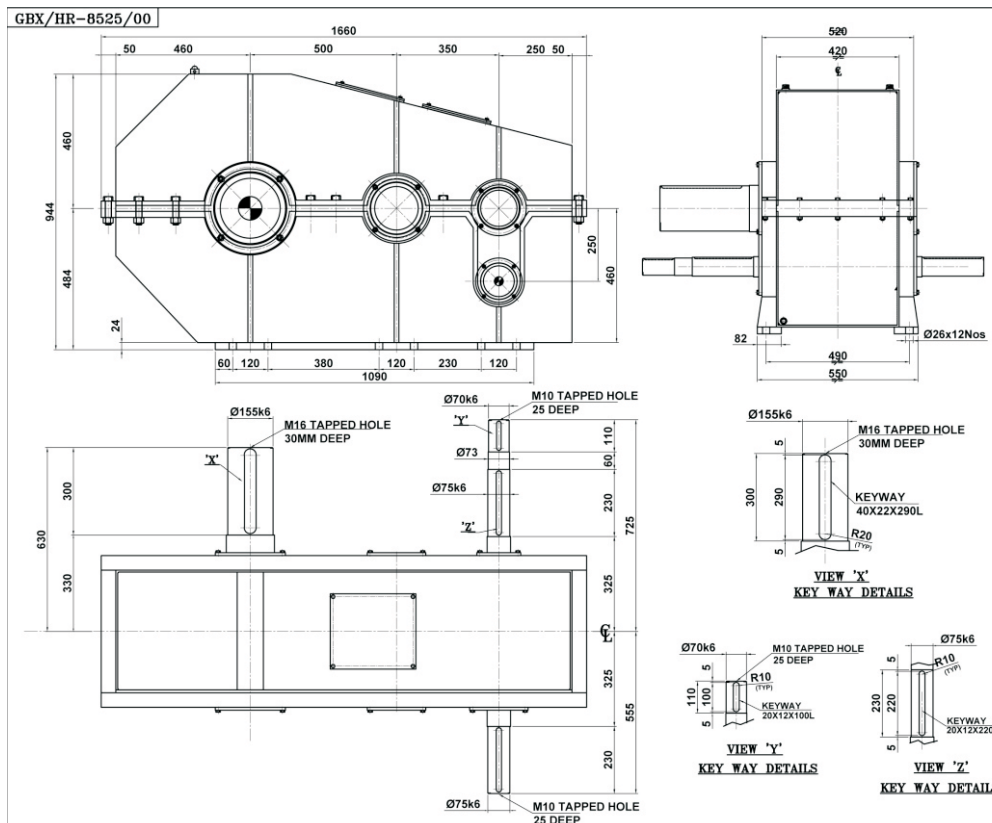
Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 7020</b>					
(960min <sup>-1</sup> )	122	40	24.0	36197.96	2.09
	102	50	19.2	37829.83	1.98
	83	63	15.2	38786.7	1.9
	67	80	12.00	39758.41	1.84
	61.5	90	10.67	41056.49	1.8
	56	105	9.1	43615.57	1.7
	44.8	124	7.74	41206.33	1.65
	40.6	142	6.76	42764.03	1.62
	36.3	160	6.00	43081.5	1.53
(720min <sup>-1</sup> )	91.5	40	18.00	36989.17	1.92
	73	50	14.40	38571.59	1.8
	58	63	11.43	39752.48	1.74
	46	80	9.00	40351.82	1.6
	38.8	90	8.00	41835.34	1.54
	28.7	105	6.86	44446.34	1.4
	2	124	5.81	42187.43	1.33
	17.8	142	5.07	43817.33	1.21
	14.5	160	4.50	44307.88	1.16

Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 6515</b>					
(960min <sup>-1</sup> )	76	40	24.0	22558.64	2.31
	65	50	19.2	24116.96	2.2
	55	63	15.2	25712.39	1.96
	46	80	12.00	27307.82	1.85
	40	90	10.67	26714.17	2.06
	36	105	9.1	28049.88	2.21
	30.5	124	7.74	28064.72	2.13
	25	142	6.76	26343.15	2.1
	22	160	6.00	26120.53	2.14
(720min <sup>-1</sup> )	60	40	18.00	23745.94	2.2
	46.3	50	14.40	22904.93	1.95
	38	63	11.43	23686.57	1.9
	30.4	80	9.00	24062.55	1.86
	25.8	90	8.00	22974.19	1.7
	22	105	6.86	22855.46	1.9
	18	124	5.81	22083.72	2.1
	15.3	142	5.07	21496.00	2.16
	12.5	160	4.50	19788.28	2.18





Model	P <sub>2</sub> (HP)	i	n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	sf
<b>HR 8525</b>					
(960min <sup>-1</sup> )	160	40	24.0	47491.9	2.4
	130	50	19.2	37829.8	2.2
	105	63	15.2	38786.7	2.17
	86	80	12.00	39758.4	2.1
	75	90	10.67	41056.5	2.05
	63.5	105	9.1	43615.6	2.5
	54	124	7.74	41206.3	2.45
	46	142	6.76	42764.0	2.34
	39	160	6.00	43081.5	2.2
(720min <sup>-1</sup> )	120	40	18.00	36989.2	2.2
	105	50	14.40	38571.6	1.95
	78	63	11.43	39752.5	1.9
	63	80	9.00	40351.8	1.86
	50.5	90	8.00	41835.3	1.70
	40	105	6.86	44446.3	1.9
	32	124	5.81	42187.4	2.1
	25.5	142	5.07	43817.3	2.16
	20.4	160	4.50	44307.9	2.18



### Technical Data For Worm Gear Box

Model	kw	Ratio	SF
Gx50	0.37	7.5	2.58
	0.55	7.5	1.74
	0.75	7.5	1.27
	1.1	7.5	0.87
	1.5	7.5	0.64
	0.37	10	2.35
	0.55	10	1.58
	0.75	10	1.16
	1.1	10	0.8
	1.5	10	0.6
	0.37	15	2.08
	0.55	15	1.4
	0.75	15	1.02
	1.1	15	0.7
	0.37	20	1.42
	0.55	20	0.96
	0.75	20	0.7
	0.37	25	1.67
	0.55	25	1.12
	0.75	25	0.82
	0.37	30	1.17
	0.55	30	0.80
	0.75	30	0.6
	0.37	40	0.6
	0.55	40	0.5
	0.75	40	0.5
	0.37	50	0.7
	0.55	50	0.6
	0.75	50	0.6
	0.37	60	0.7
	0.55	60	0.6
	0.75	60	0.6
	0.37	80	0.7
	0.55	80	0.6
	0.75	80	0.6

Model	kw	Ratio	SF
Gx63	0.37	7.5	2.8
	0.55	7.5	2.2
	0.75	7.5	2.1
	1.1	7.5	2.0
	1.5	7.5	1.9
	2.2	7.5	1.3
	3.7	7.5	0.9
	0.37	10	2.4
	0.55	10	2.1
	0.75	10	1.9
	1.1	10	1.8
	1.5	10	1.6
	2.2	10	1.08
	3.7	10	0.8
	0.37	15	2.3
	0.55	15	1.9
	0.75	15	1.7
	1.1	15	1.6
	1.5	15	1.3
	2.2	15	0.82
	0.37	20	2.2
	0.55	20	1.94
	0.75	20	1.42
	1.1	20	0.19
	1.5	20	0.71
	0.37	25	2.0
	0.55	25	1.5
	0.75	25	1.28
	1.1	25	0.87
	1.5	25	0.65
	0.37	30	1.71
	0.55	30	1.15
	0.75	30	0.84
	0.37	40	1.62
	0.55	40	1.09
	0.75	40	0.8
	0.37	50	1.47
	0.55	50	0.99
	0.75	50	0.73
	0.37	60	1.09
	0.55	60	0.74
	0.75	60	0.54
	0.37	80	0.92
	0.55	80	0.62
	0.75	80	0.50

Model	kw	Ratio	SF
Gx80	0.37	7.5	3.1
	0.55	7.5	2.5
	0.75	7.5	2.2
	1.1	7.5	2.0
	1.5	7.5	1.92
	2.2	7.5	1.7
	3.7	7.5	1.4
	0.37	10	2.6
	0.55	10	2.3
	0.75	10	2.0
	1.1	10	1.8
	1.5	10	1.6
	2.2	10	1.5
	3.7	10	1.1
	0.37	15	2.4
	0.55	15	2.1
	0.75	15	1.8
	1.1	15	1.5
	1.5	15	1.2
	2.2	15	1.1
	3.7	15	0.8
	0.37	20	2.2
	0.55	20	2.0
	0.75	20	1.86
	1.1	20	1.6
	1.5	20	1.5
	2.2	20	1.2
	3.7	20	0.71
	0.37	25	5.46
	0.55	25	3.67
	0.75	25	2.7
	1.1	25	1.84
	1.5	25	1.35
	2.2	25	0.92
	3.7	25	0.6
	0.37	30	2.0
	0.55	30	1.7
	0.75	30	1.6
	1.1	30	1.54
	1.5	30	1.35
	2.2	30	0.92
	3.7	30	0.6
	0.37	40	2.0
	0.55	40	1.8
	0.75	40	1.6
1.1	40	1.38	
1.5	40	1	
2.2	40	0.7	
0.37	50	1.9	
0.55	50	1.8	
0.75	50	1.53	
1.1	50	1.04	
1.5	50	0.76	
2.2	50	0.6	
0.37	60	2.15	
0.55	60	1.45	
0.75	60	1.06	
1.1	60	0.73	
1.5	60	0.6	
0.37	75	1.88	
0.55	75	1.26	
0.75	75	0.92	
1.1	75	0.63	

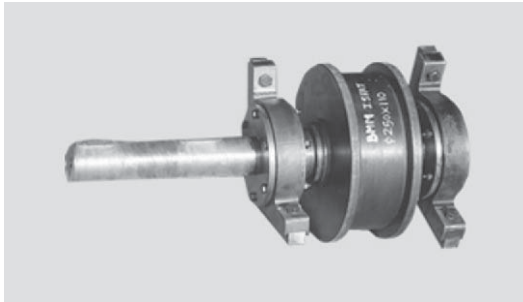
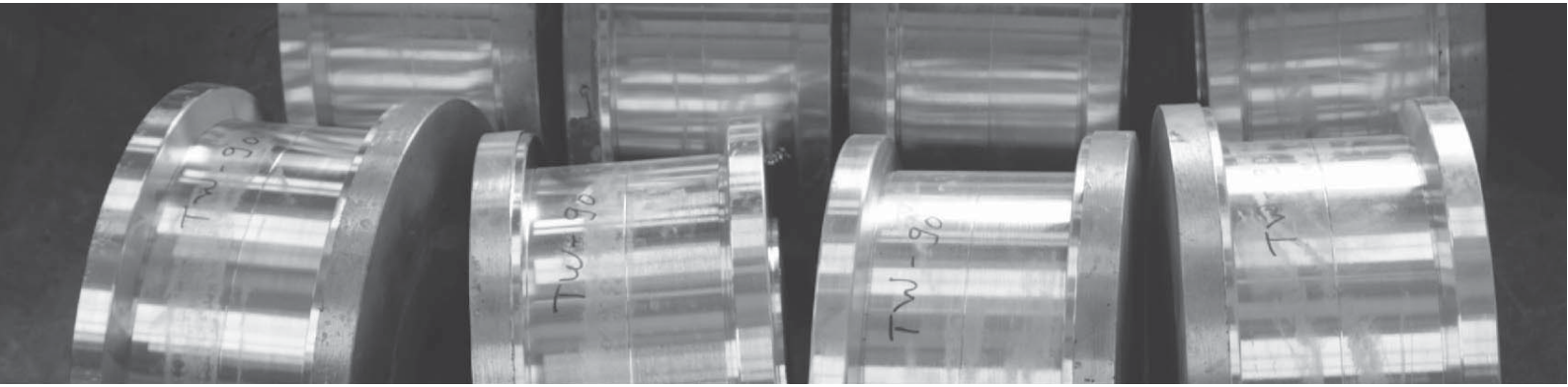
Model	kw	Ratio	SF
Gx100	0.37	7.5	2.7
	0.55	7.5	2.5
	0.75	7.5	2.2
	1.1	7.5	2.1
	1.5	7.5	1.96
	2.2	7.5	1.8
	3.7	7.5	1.75
	0.37	10	2.2
	0.55	10	1.96
	0.75	10	1.7
	1.1	10	1.5
	1.5	10	1.3
	2.2	10	1.2
	3.7	10	1.0
	0.37	15	2.1
	0.55	15	1.9
	0.75	15	1.7
	1.1	15	1.52
	1.5	15	1.3
	2.2	15	1.3
	3.7	15	1.2
	0.37	20	2.0
	0.55	20	1.83
	0.75	20	1.7
	1.1	20	1.7
	1.5	20	1.6
	2.2	20	1.5
	3.7	20	0.71
	0.37	25	2.1
	0.55	25	2.0
	0.75	25	1.84
	1.1	25	1.67
	1.5	25	1.5
	2.2	25	1.3
	3.7	25	1.12
	0.37	30	2.1
	0.55	30	1.8
	0.75	30	1.7
	1.1	30	1.5
	1.5	30	1.35
	2.2	30	1.25
	3.7	30	0.94
	0.37	40	1.9
	0.55	40	1.85
	0.75	40	1.7
1.1	40	1.6	
1.5	40	1.58	
2.2	40	1.07	
0.37	50	2.0	
0.55	50	1.8	
0.75	50	1.7	
1.1	50	1.5	
1.5	50	1.4	
2.2	50	1.07	
0.37	60	2.1	
0.55	60	1.9	
0.75	60	1.8	
1.1	60	1.52	
1.5	60	1.11	
2.2	60	0.76	
0.37	75	3.37	
0.55	75	2.27	
0.75	75	1.66	
1.1	75	1.35	
1.5	75	0.83	

Model	kw	Ratio	SF
Gx160	0.37	7.5	3.4
	0.55	7.5	3.2
	0.75	7.5	3.0
	1.1	7.5	2.7
	1.5	7.5	2.5
	2.2	7.5	2.1
	3.7	7.5	2.0
	0.37	10	3.2
	0.55	10	3.0
	0.75	10	2.8
	1.1	10	2.6
	1.5	10	2.4
2.2	10	2.0	
3.7	10	1.9	
0.37	15	2.8	
0.55	15	2.6	
0.75	15	2.4	
1.1	15	2.3	
1.5	15	2.1	
2.2	15	1.8	
3.7	15	1.75	
0.37	20	2.8	
0.55	20	2.5	
0.75	20	2.3	
1.1	20	2.2	
1.5	20	2.0	
2.2	20	1.8	
3.7	20	1.6	
0.37	25	2.5	
0.55	25	2.3	
0.75	25	2.2	
1.1	25	2.0	
1.5	25	1.9	
2.2	25	1.7	
3.7	25	1.5	
0.37	30	2.3	
0.55	30	2.1	
0.75	30	1.8	
1.1	30	1.72	
1.5	30	1.6	
2.2	30	1.5	
3.7	30	1.3	
0.37	40	2.0	
0.55	40	1.9	
0.75	40	1.7	
1.1	40	1.5	
1.5	40	1.3	
2.2	40	1.2	
3.7	40	1.1	
0.37	50	1.9	
0.55	50	1.7	
0.75	50	1.6	
1.1	50	1.5	
1.5	50	1.3	
2.2	50	1.2	
3.7	50	1.1	
0.37	60	1.9	
0.55	60	1.6	
0.75	60	1.4	
1.1	60	1.2	
1.5	60	1.0	
2.2	60	0.9	
3.7	60	0.8	
0.37	75	1.7	
0.55	75	1.5	
0.75	75	1.3	
1.1	75	1.2	
1.5	75	1.2	
2.2	75	0.9	
3.7	75	0.8	

Model	kw	Ratio	SF
Gx120	0.37	7.5	3.1
	0.55	7.5	2.5
	0.75	7.5	2.2
	1.1	7.5	2.0
	1.5	7.5	1.9
	2.2	7.5	1.6
	3.7	7.5	1.4
	0.37	10	2.6
	0.55	10	2.2
	0.75	10	2.0
	1.1	10	1.8
	1.5	10	1.6
2.2	10	1.5	
3.7	10	1.1	
0.37	15	2.4	
0.55	15	2.1	
0.75	15	1.7	
1.1	15	1.5	
1.5	15	1.2	
2.2	15	1.1	
3.7	15	0.8	
0.37	20	2.2	
0.55	20	2.0	
0.75	20	1.8	
1.1	20	1.6	
1.5	20	1.5	
2.2	20	1.2	
3.7	20	0.7	
0.37	25	2.1	
0.55	25	2.0	
0.75	25	1.8	
1.1	25	1.6	
1.5	25	1.5	
2.2	25	1.3	
3.7	25	1.1	
0.37	30	2.0	
0.55	30	1.7	
0.75	30	1.6	
1.1	30	1.5	
1.5	30	1.3	
2.2	30	0.9	
3.7	30	0.6	
0.37	40	1.9	
0.55	40	1.8	
0.75	40	1.7	
1.1	40	1.6	
1.5	40	1.4	
2.2	40	1.2	
3.7	40	0.8	
0.37	50	1.9	
0.55	50	1.7	
0.75	50	1.6	
1.1	50	1.5	
1.5	50	1.3	
2.2	50	1.2	
3.7	50	1.1	
0.37	60	1.9	
0.55	60	1.6	
0.75	60	1.4	
1.1	60	1.2	
1.5	60	1.0	
2.2	60	0.8	
3.7	60	0.7	
0.37	75	2.0	
0.55	75	1.8	
0.75	75	1.6	
1.1	75	1.5	
1.5	75	1.4	
2.2	75	1.2	

Model	kw	Ratio	SF
Gx200	0.37	7.5	3.8
	0.55	7.5	3.5
	0.75	7.5	3.2
	1.1	7.5	3.0
	1.5	7.5	2.8
	2.2	7.5	2.6
	3.7	7.5	2.5
	0.37	10	3.3
	0.55	10	3.1
	0.75	10	3.0
	1.1	10	2.8
	1.5	10	2.6
	2.2	10	2.4
	3.7	10	2.3
	0.37	15	3.0
	0.55	15	2.8
	0.75	15	2.6
	1.1	15	2.4
	1.5	15	2.2
	2.2	15	2.0
	3.7	15	1.9
	0.37	20	2.8
	0.55	20	2.6
	0.75	20	2.5
	1.1	20	2.3
	1.5	20	2.2
	2.2	20	1.9
	3.7	20	1.85
	0.37	25	2.7
	0.55	25	2.5
0.75	25	2.4	
1.1	25	2.3	
1.5	25	2.0	
2.2	25	1.9	
3.7	25	1.8	

Model	kw	Ratio	SF
Gx200	0.37	30	2.5
	0.55	30	2.3
	0.75	30	2.0
	1.1	30	1.8
	1.5	30	1.75
	2.2	30	1.6
	3.7	30	1.5
	0.37	40	2.5
	0.55	40	2.3
	0.75	40	2.0
	1.1	40	1.9
	1.5	40	1.85
	2.2	40	1.8
	3.7	40	1.3
	0.37	50	2.3
	0.55	50	2.0
	0.75	50	1.8
	1.1	50	1.7
	1.5	50	1.7
	2.2	50	1.5
	3.7	50	1.4
	0.37	60	2.2
	0.55	60	2.0
	0.75	60	1.8
	1.1	60	1.6
	1.5	60	1.5
	2.2	60	1.3
	3.7	60	1.2
	0.37	75	2.0
	0.55	75	1.86
0.75	75	1.65	
1.1	75	1.3	
1.5	75	1.2	
2.2	75	1.1	
3.7	75	0.9	



Wheel assembly is the most important part of crane as it provides actual motion to crane.

The assembly consists of various components including wheel, shaft, bearings, housing etc.

Gearx manufactures around 3000 nos of wheel assemblies per year & supplies to various EOT crane manufacturers.

The raw material used for wheel assembly is genuine one which has been tested thoroughly for various testing procedures like chemical, physical analysis before starting of processing.

Forgings & shafts of wheels have been undergone for ultrasonic testing procedure to ensure defect free production.

A wheel has been heat treated to specified hardness by means of hardening & tempering procedures.

Gearx manufactures wheels starting for 150 mm Diameter up to 700 mm Diameter as per customer specifications.

### Technical Specifications of Wheel Assembly

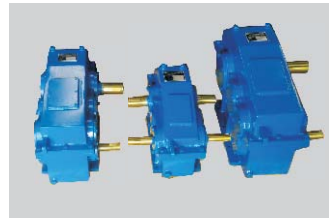
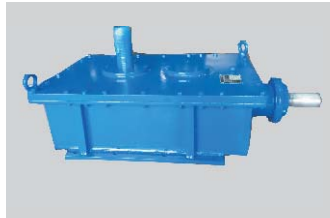
Sr. No.	Specification	Outer Dia (mm)	Tread Dia (mm)	Tread Width (mm)	Thickness (mm)	Approx Wt. (mm)
1	160 x 94 Thk	192	160	52 , 62	94	28
2	160 x 110 Thk	192	160	70 , 78	110	32
3	200 x 94 Thk	232	200	52 , 62	94	42
4	200 x 110 Thk	232	200	70 , 74 , 78	110	45
5	200 x 122 Thk	232	200	84 , 90	122	48
6	250 x 110 Thk	282	250	62 , 74 , 78	110	73
7	250 x 122 Thk	282	250	80 , 84 , 90	122	77
8	250 x 132 Thk	282	250	100	132	80
9	320 x 110 Thk	360	300	64 , 70	110	114
10	320 x 122 Thk	360	300	74 , 78 , 82	122	121
11	320 x 132 Thk	360	300	86 , 92	132	126
12	320 x 142 Thk	360	300	96 , 102	142	131
13	400 x 126 Thk	440	400	74 , 80 , 86	126	210
14	400 x 134 Thk	440	400	90 , 94	134	218
15	400 x 146 Thk	440	400	100 , 106	146	232







The existing setup of company consists of various categories of machines. The factory has area around 2000 sq. feet situated at Narhe. All machines are comprises of respective inspection instruments & gauges which are required for day to day inspection activity.



## Office & Works

### **GearX Manufacturing**

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