

**AN ISO 9001-2008  
CERTIFIED COMPANY**



*A Mark of Quality*



## Shaft Mounted Gear Boxes

**STONE CRUSHER PARTS  
ROLLERS ● IDLERS ● GEAR BOX**

[www.kic.co.in](http://www.kic.co.in)



# ABOUT US...

## Our Business

Khodiyar Industrial Corporation was established as a dream of and also lived by Mr. Hansraj Sorathiya, the founder, who is a believer of ethics and a man who didn't want to just say, that "all the companies nowadays are completely commercialized and truth and faith are vanished" but actually wanted to make a difference by setting an example.

We started with a smaller unit but as you know "where there's will there's a way", we have slowly and steadily become a leader in this field of industry.

Dealing with us will put you completely on the relaxed position as we are putting up to the expectations of our customers and that is something that we have been doing since the beginning.

## Core Value

- >> Transparency
- >> Customer First
- >> Continuous Improvement
- >> Respect for All
- >> Commitment
- >> Team Work

## Goal

To be the "TATA" of our business and build Rs. 300 Cr. Group by 2030.

## Who We Are

We are the ISO 9001:2008 Company, Engaged in the manufactures, Export & Supply of Belt Conveyor Idlers, Belt Conveyor Rollers, Drum Pulleys, Shaft Mounted Gear Box and All types of Conveyor Structures Parts.



## OPTIONAL ACCESSORIES

"KIC" Shaft Mounted Speed Reducer is compact in design and optimum in performance. A Shaft Mounted Reduction gearbox provides a very convenient method of reducing speed, since it mounted directly on the drive shaft instead of requiring foundations of its own. It eliminates the use of flexible coupling. These Gear Boxes are suitable for both forward and reverse motion.

A torque-arm anchors the gearbox and provides quick, easy adjustment of the V-Belts by means of its turnbuckle.

KIC Shaft Mounted Reeducation gearbox is manufacturing in Six sizes, designated by D to J. It may have two nominal gear ratios, 7:1 for D and 5½:1 for E to J. A very wide choice of final driven speed can be achieved by the use of an appropriate input V -Belt drive through various pulley combinations. The units will normally splash oil lubricated.



### TAPER LOCK BUSH

Taper Lock Bush and Support Bushes are manufactured from Special Steel to permanently remove any chance of corrosion in the future. The unique Taper bush locking system, which overcomes the difficulties, experienced with other methods of mounting, particularly in corrosive environments. Various sizes of Bores are available in the taper lock bush to facilitate easy mounting on different Shaft sizes.



### BACKSTOPS

Backstops (Holdback) are designed and incorporated to prevent reversal rotation or holding device to prevent reverse rotation in application such as conveyors, bucket elevators, fan, rotary pumps and kilns. Backstop are not recommend for use on system that are designed for handling Human such as elevators, man lifts, Sky lifts etc. Backstop cannot be used as a brake. The Backstop does not need additional lubrication as it gets oil from the gearbox.



### MOTOR MOUNTS

Motor mounting options are available to fit directly onto gear unit through special motor mounting tools for shaft mounted gear unit. Motor mounting tools are designed with robust base plate which accommodates wide range of motor frame sizes. Each size of motor mount has sufficient adjustment to ensure that belt can be fitted and tensioned whenever required throughout life of belts.



# TABLE 1

## SECTION OF SERVICE FACTOR BASE ON APPLICATIONS



TYPE OF DRIVEN MACHINE	OPERATION HOURS PER DAY		
	Up to 10 Hrs.	10 to 16 Hrs.	Over 16 Hrs.
<b>UNIFORM</b> Agitators and Mixers –liquid or semi-liquid Blowers-Centrifugal, bottling Machine, Conveyors and Elevators Uniformly Loaded Cookers Laundry Washing Machines – Non reversing Line Shafts, Pumps-Centrifugal and gear, Wire Drawing machines	1.0	1.12	1.25
<b>MODERATE SHOCK</b> Agitators and Mixture – Variable density Conveyors – Non-Uniformly Loaded Cranes – Travel motion and hoisting Draw bench, Feeders– Pulsating load Hoists Kilns, Laundry Tumbler, Lifts Piston Pumps – with 3 or more cylinders Pulp and Paper making Machinery Rubber Mixers and Calenders Rotary Screens, Textile Machinery	1.25	1.4	1.6
<b>HEAVY SHOCK</b> Brick Press, Briquetting Machine, Conveyors – reciprocating and shaker Crushers, Feeders – reciprocating, Hammer Mills, Piston Pumps -1 or 2 cylinders, Rubber Masticators, Vibrating Machine	1.6	1.8	2.0

### UNIT SELECTION FOR "KIC" MODELS

- Service Factor** : From the above table select the service factor applicable to the drive.  
**Design Power** : Multiply the consume power (or Motor power if consume power not known) by the service factor choose in step 1.

**Note** : Ensure that design power exceed motor rated power.

- Unit selection** : Using the value from step 2, refer to the following power rating table and select correct size of gear unit. The selection of single or double reduction gearbox will be determined by output speed/Input speed. The normal operating speeds for each of the gearbox models are shown in power rating tables. For other speed consult "KIC"

### SELECTION EXAMPLE

- Application "Crushers"  
 Duty hours operating more than 16 hours per day  
 Motor power 10kW  
 Motor speed 1440 rpm  
 Conveyor speed require 50 rpm  
 Require service factor 2 (From Table 1)  
 Gearbox rating require = Motor power x Service factor = 10 x 2 = 20kW  
 From power rating table 2 Gear box rating 23kW at output speed 50rpm for "J" gear model.

# TABLE 2

**Power Rating (kW) Ratio 5½ : 1 units  
(Single reduction)( 1HP = 0.746kW)**

Gear Box Input Speed (KIC1)	Gear Box Output Speed (KIC2)	KIC E	KIC F	KIC G	KIC H	KIC J
300	50.0	3.75	5.6	9	14.6	23
327	54.5	4.09	7.5	11.9	19.4	25.1
350	58.3	4.38	8.0	12.7	20.8	26.9
360	60.0	4.50	8.4	13.4	21.9	27.6
375	62.5	4.69	8.8	14.0	22.8	28.8
400	66.7	5.00	9.6	15.4	25	30.7
425	70.8	5.31	10.2	16.4	26.6	32.6
450	75.0	5.63	11.3	17.9	29.2	34.5
500	83.3	6.25	12.6	19.9	32.4	38.3
600	100.0	7.50	15.1	23.9	38.9	46.0
700	116.7	8.75	17.6	27.8	45.4	53.7
800	133.3	10.00	20.1	31.8	51.9	61.3
900	150.0	11.25	22.6	35.8	58.4	69.0
1000	166.7	12.50	25.1	39.8	64.9	76.7
1100	183.3	13.75	27.6	43.8	71.4	84.3
1200	200.0	15.00	30.1	47.7	77.9	92.0
1300	216.7	16.25	32.6	51.7	84.4	99.7
1400	233.3	17.50	35.2	55.7	90.8	107.3
1500	250.0	18.75	37.7	59.7	97.3	115.0

## STANDARD METRICS KEYWAYS

Standard Hub Bore (MM)	Hub Keyway	Key Size
35	10 x 3.5	10 x 8
40	12 x 3.5	12 x 8
50	14 x 4	14 x 9
55	16 x 4.5	16 x 10
60	18 x 4.6	18 x 11
65	18 x 4.6	18 x 11
70	20 x 5.1	20 x 12
75	20 x 5.1	20 x 12
80	22 x 5.6	22 x 14
85	22 x 5.6	22 x 14
90	25 x 5.6	25 x 14
100	28 x 6.6	28 x 16

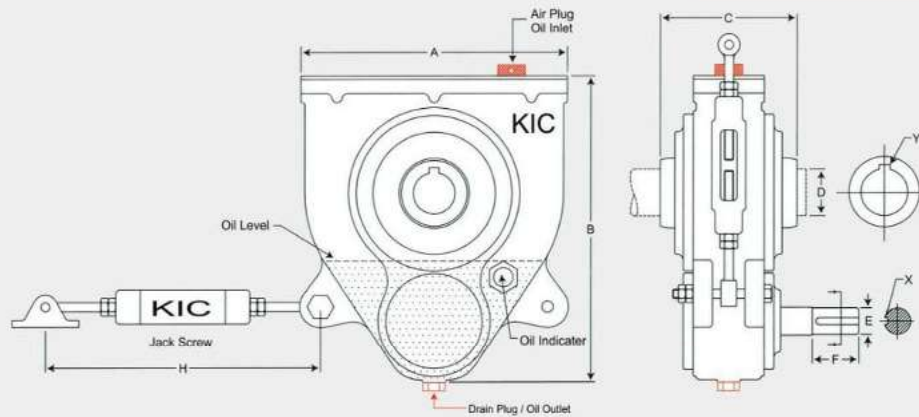
## STANDARD INCH KEYWAYS

Standard Hub Bore (MM)	Hub Keyway	Key Size
1.5"	3/8" x 3/16"	3/8" x 3/8"
2"	1/2" x 1/4"	1/2" x 1/2"
2.5"	5/8" x 5/16"	5/8" x 5/8"
3"	7/8" x 7/16"	7/8" x 7/8"
4"	1" x 1/2"	1" x 1"

## TAPPER LOCK BUSH TECHNICAL DETAILS

Model	Tapper Lock Bush Hole	
	MM	Inch
F	50	50.8 (2")
G	65	63.5 (2.1/2")
H	75	76.2 (3")
J	75	76.2 (3")

# TECHNICAL SPECIFICATION



(All Following Dimension are in MM)

Sr. No.	Model	Ration	Flange		Pulley Shaft	Key Way	Pulley Shaft	Width	Height	Flange	Jack Screw		Motor Coapacity HP	Oil Capacity Ltr.
			D	E							Min.	Max.		
1	J	5.5 : 1	100.00 60.00	48	14 x 6	80	450	510	245	400	500	25 HP	7	
2	H	5.5 : 1	80.00 60.00	43	12 X 5	70	400	460	230	400	500	15 HP	5	
3	G	5.5 : 1	75.00 60.00	38	12 X 5	70	365	435	215	400	500	10 HP	4.5	
4	F	5.5 : 1	65.00 50.00	28	8 X 4	50	310	365	190	360	480	7.5 HP	3.5	
5	E	5.5 : 1	55.00 40.00	28	8 X 4	50	300	360	170	360	480	5 HP	3	
6	D	7 : 1	55.00 40.00	28	8 X 4	45	287	330	170	360	480	3 HP	2	

### Following RPM Details Only Used for 12" Conveyor Drum

Model	960 RPM - Motor			1440 RPM - Motor		
	Motor Pulley	Gear Pulley	Conveyor RPM	Motor Pulley	Gear Pulley	Conveyor RPM
D	4"	7"	78	4"	12"	69
D	4"	8"	69	4"	14"	59
E	4"	8"	86	4"	12"	83
E	4"	9"	77	4"	14"	74
F	4"	10"	70	4"	14"	74
F	4"	12"	59	4"	16"	65
G	4"	10"	70	4"	16"	65
G	4"	12"	59	4"	18"	58
H	4"	10"	70	4"	16"	65
H	4"	12"	59	4"	18"	56
J	4"	10"	70	4"	16"	65
J	4"	12"	59	4"	18"	56

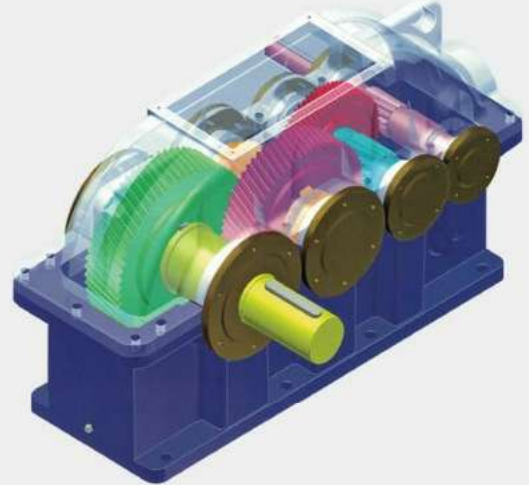
### RECOMMENDED LUBRICANT ISO VG320

Brand	Grade
Bharat Petroleum	Cabot 320 or Amocam 320
Castrol	Alpha ZN320
Gulf	Harmony 320
Hindustan Petroleum	Enklo 320
Indian Oil	Servomesh SP 320 or Servosystem 320
Veedol	Avalon 320

## Parallel Shaft Helical Gear Box



**Range :**  
Centre Distance Single Stag up to 400mm.  
**Centre Distance :**  
400mm at final stage.  
**Ratio :**  
Upto 100:1  
**Types :**  
Two, Three & 4 stage.  
Up to 100 KW



## Rotary Gear Pump

Size : ½", ¾", 1", 1½"



## V-Belt Pulley

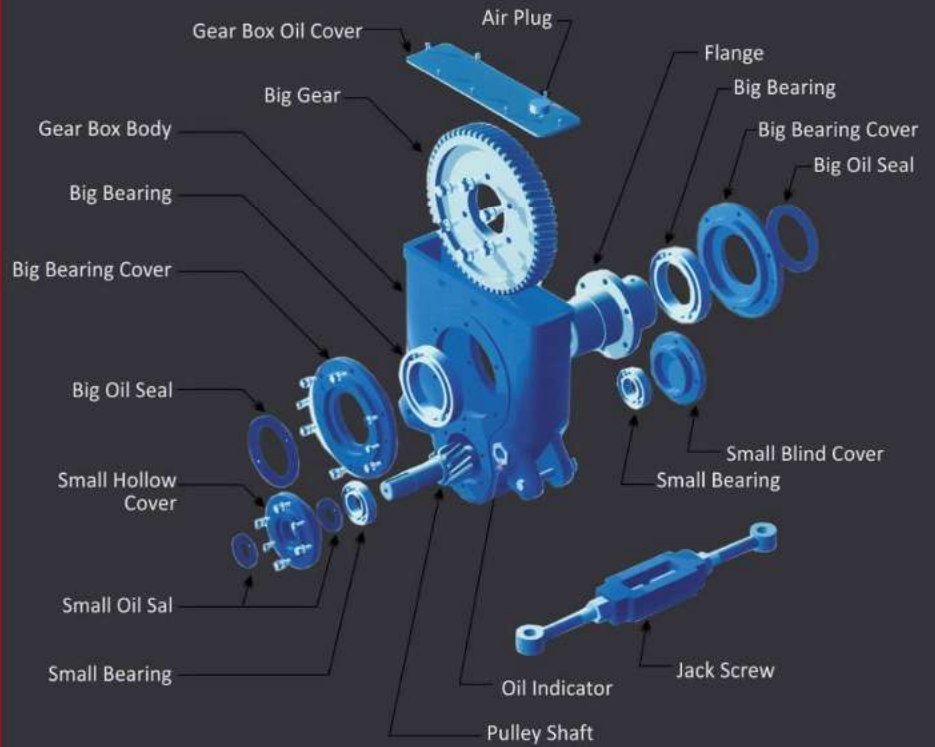
Size : 4" to 28"  
Section : A/B/C/D



## Worm Gear Box

**Range :**  
Centre Distance  
1.25" to 9"  
**Ratio :**  
5:1 to 100:1  
**Types :**  
Adaptable, Underdriven,  
Overdriven, Vertical, Hollow Shaft  
& double reduction models





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