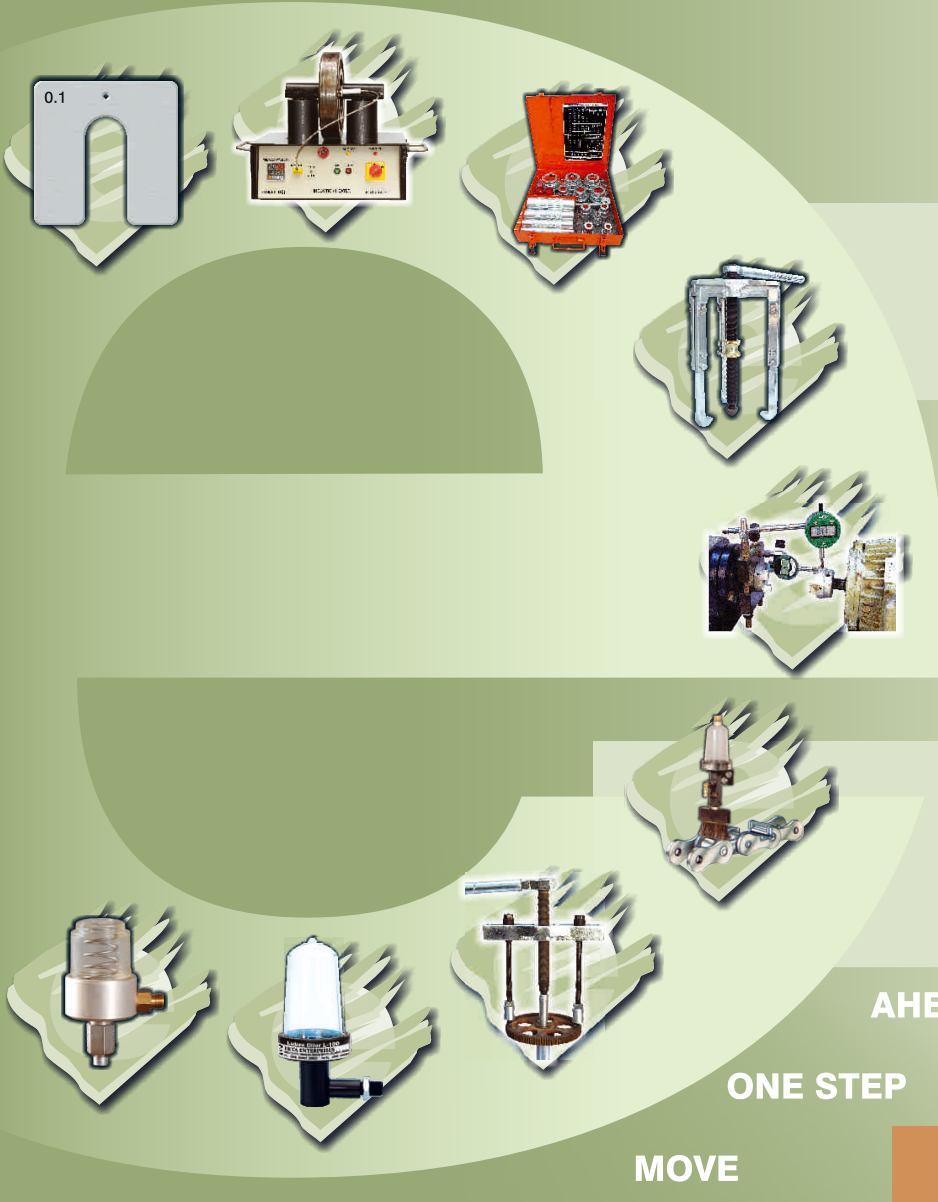




EKTA ENTERPRISES



RELIABILITY  
CENTERED  
MAINTENANCE

PREDICTIVE  
MAINTENANCE

PREVENTIVE MAINTENANCE

BREAKDOWN MAINTENANCE

AHEAD

ONE STEP

MOVE

We manufacture a wide range of products which find extensive applications in PREVENTIVE MAINTENANCE OF ROTATING MACHINES.

BREAKDOWNS IN ROTATING MACHINES ARE PRIMARILY ATTRIBUTED TO THE FOLLOWING REASONS:

**1) Improper Mounting & Dismounting :**

Both mounting and dismounting of rotating elements (Viz. Bearings, Pulleys, Gears, Couplings) needs to done with utmost precision and care. Uneven forces, chiseling, hammering can cause irreparable damage to these parts. It can also cause damage to other parts including shafts, seals, etc. Moreover time & energy spent in dismounting without proper tools is also very high. Hence it is imperative that your maintenance department is equipped with proper tools for mounting/dismounting of rotating elements.

**2) Improper Lubrication :**

Both over lubrication and under lubrication can cause premature failure of rotating elements. Over lubrication will result in overheating, damage to seals and reduction in viscosity of oil/grease etc. Under lubrication is an excellent recipe for equipment failure.

**3) Improper Shaft Alignment :**

Any rotating machine having couplings needs to be ALIGNED correctly. Improper alignment will cause vibration, loosening of bolts/studs, damage to spider of couplings. Once spider is damaged it will eventually damage coupling itself. Inaccurate alignment will also cause accelerated wear of bearings and seals etc. Hence a proper understanding of shaft alignment by using correct tools is also very important for maintenance engineers.

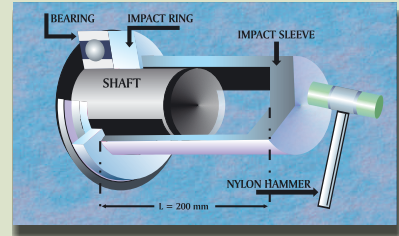
Other factors which contribute to premature failure of rotating elements are (1) Dynamic balancing (2) Choice of lubricant (3) Fits /tolerances between mating elements e.g. bearing-shaft (4) Environmental factors like moisture , chemicals, gases etc. (5) Reliability of elements used e.g. bearings, couplings etc. (6) Personal skills of technicians / engineers.

# MOUNTING / DISMOUNTING TOOLS



## a) Bearing Fitting Kit :

This is used for cold mounting of small/ medium sized bearings upto 50mm I.D. Kit comprises of 33 Impact Rings, 05 Impact Sleeves, 01 Nylon hammer in a portable steel box. All rings/sleeves are made from Alloy Steel, hardened, ground and Zinc plated. Each ring / sleeve is numbered for easy identification. We can offer special kit for bearings upto 80mm I.D. (to be used in absence of Induction heaters). The kit is an excellent long term investment for your maintenance department to mount bearings safely, correctly and in minimum of time.



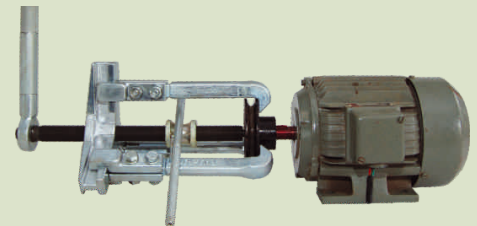
## b) Induction Heater:

Generally matching elements having diameter of 40mm and above and having interference fit should be heated and mounted. The best way is to use an induction heater. They have wide applications in Industry to mount Bearings, Pulleys, Couplings, Gears, Pinions, Flywheels, Sleeves and other transmission elements. The product features a digital temperature controller in steps of 1°C, a MCB to protect from overload, a portable trolley to move the product within the works. The range is from 0.4 KVA to 20 KVA, suitable for mounting bearings from 25mm I.D. to 500mm I.D. and weight upto 300 kg. Induction heaters offer a convenient, efficient, fast and economical method of mounting press fit / shrink fit machine elements. It also increases life of bearings and other transmission elements.



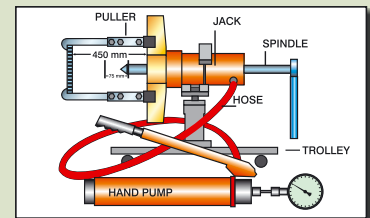
## c) Mechanical Pullers (Bearing Pullers) :

THESE ARE MODULAR, SLIDING DESIGN HEAVY DUTY MECHANICAL PULLERS for removing Bearings, Gears, Pulleys and Couplings. All components are made from high grade alloy steel, forged, hardened and precision machined. These mechanical pullers have no SLIPPAGE & have very high LOAD CARRYING CAPACITY. They are available in diameter range from 100mm to 450mm and reach upto 300mm, both in 2 jaw & 3 jaw configuration. Capacity available is from 1.5 to 20 Tons. Since they are of modular design it is possible to increase length upto 500mm, also it permits use of special jaws for removing motor fans and chisel jaws for removing bearings having small clearance behind them.



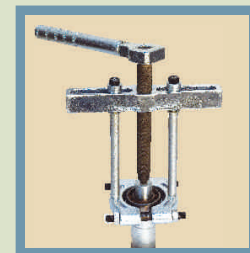
## d) Hydraulic Puller/Pusher :

This hydraulic tool has a unique design wherein the same tool can be used for pulling & pushing Bearings, Gears, Pulleys etc. A hollow jack is used and a suitable trolley with lifting arrangement is provided (to lift puller upto 500mm). These pullers also use forged, alloy steel hardened and precision machined elements. They are available in the diameter range up to 60mm, reach upto 500mm and capacity upto 20 tons. The puller can be easily converted to pusher by replacing puller jaws with pusher jaws (which are flat) and fixing a suitable adaptor between jack & puller.



## e) Jacking Extractors:

They are excellent Tools for Dismounting GEARS, PULLEYS, IMPELLERS, and BLOWERS etc. If these elements have a Tapping they can directly be dismounted using these extractors, otherwise you will need to Drill & Tap two holes. If this is not possible a temporary NUT can be welded, and removed after Dismounting. The HIGH-TENSILE BOLTS/STUDS can be adjusted in the SADDLE by sliding them. Suitable Tips can be used as per tapping available in machine element. Force can be applied manually by spindle/Tommy or by using a Hydraulic jack. All parts are made from High grade ALLOY STEEL, Heat treated and plated for corrosion prevention. You can use a Bearing puller attachment Ref. Fig 3 to dismount Bearings having very little clearance behind them. This is made from FORGED and Hardened Alloy Steel to give excellent load carrying capacity.



## f) Hydraulic Pullers – Portable

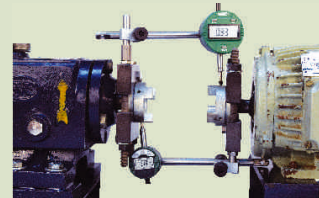
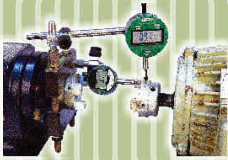
These are light weight portable tools for FIELD APPLICATIONS. They have a 3/2 combination head & are available in the range of 6 tons to 30 tons. The pump is Integral, Compact & light weight.



# SHAFT ALIGNMENT DIVICES

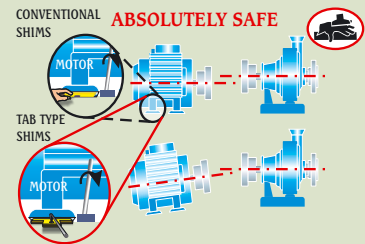
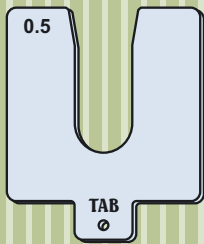
## g) Shaft Alignment Tool :

This is a specially developed product which provides plant engineers with a tool to do accurate & reliable shaft alignment. The product can be used for almost any type of coupling. Both Radial and Axial alignment can be checked simultaneously. In spacer type couplings you can use RIM/FACE method whereas in couplings not having spacer you can use additional vee block (for checking axial misalignment). REVERSE alignment can be done by using two kits simultaneously since each kit has a minimum of two spirit levels to indicate 0° 90°, 180° rotation. These kits are available for couplings having hub diameter from 30mm to 300mm and distance between couplings from 50mm upto 300mm.



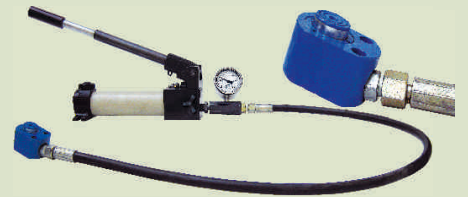
REVERSE INDICATION

**h) Ready Cut Shims Standard - Tab type :** They are made from Die punch Process and are burr free / Flat. Each shim is individually numbered for thickness, hence identifying them while doing Alignment is accurate and fast. The advantage of Tab is that the operator can remove these Shims by using a bent Pin, 3mm hole has been provided for this purpose. In conventional square / rectangular Shims operator has to put his finger to remove Shims. This is extremely risky. A mishap can allays happen This is the reason plant engineers the world over have shifted to ready cut but tab type Shims, although these are costlier. They are available for bolt size from 40mm to 44mm and standard thickness from 0.05mm to 1.0mm, higher thickness can be offered on demand. Ready cut Shims makes the job of Shaft alignment faster, more accurate and more reliable. We also offer tailor made Shims as per your drawings/specifications.



## i) Light weight hand Pump/Button jacks. :

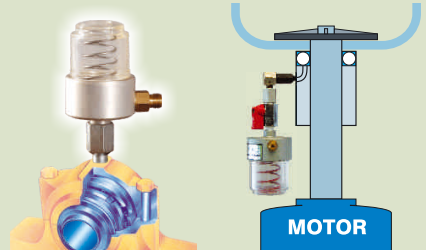
The product features an aluminium body light weight (5kg.) hydraulic hand pump operating on 700 bar pressure. The handle has an extension to increase leverage Button jacks are low height jacks ideally used for working in confined space. They can be used for lifting heavy motors, gear boxes, pumps, etc. While doing alignment or other maintenance work. They are also used for pushing/pulling pulleys couplings etc. We also offer a complete system consisting of light weight pumps, jack hose (1.25 meter long,) glycerine filled pressure gauge, quick release coupling and a low height jack. Jack capacity is from 5tons. to 30 tons.



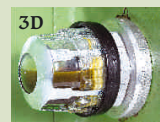
# SINGLE POINT LUBRICATIONS

## j) Automatic Grease Feeders (Grease cup) :

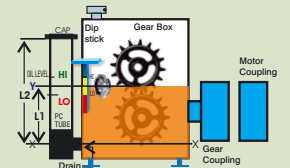
Many grease lubricated bearings require periodic lubrication. The regreasing interval & quantity is a complex function of shaft diameter, RPM, type of bearing, operating temperature etc. Lubex grease feeders provide RIGHT QUANTITY of grease at the RIGHT TIME. These cups are available in 30 gms, 60 gms, 180 gms capacity. These grease feeders can be installed in any direction viz. vertical, horizontal or upside down. Grease can be refilled into the cup ONLINE without stopping equipment through NRV by using grease gun. Dome is of PC\* and other elements are made of aluminum alloy.



**k1) 3D Oil Indicators:-** They provide a clear Visual on line Indication of oil level in machines. The product consists of a Polycarbonate dome, fixed to a suitable Adaptor as per machine size. Unlike conventional 2D glass type oil indicators, its never gets blackish/stained.



**k2) TUBE TYPE OIL INDICATORS:-** They have to be installed in the Drain of machine. A clear PC Tube is provided to indicate oil level in machine. A built in drain plug is provided in the oil indicator. The product finds applications in Gear Boxes wherein Dip Stick is provide to measure HI/LO level. Also used in Plummer blocks

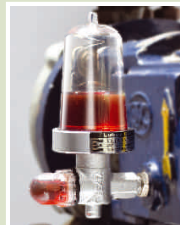




STRANDED CLO

**I) Constant Level Oilers (Oil cup) :**

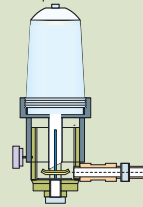
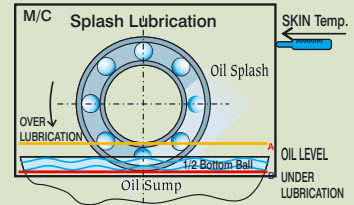
These are high performance modular design oil cups with Zero leakage, designed to reliably maintain constant oil level in oil lubricated machines. These oilers offer significant advantages over conventional hinge type oilers since there is no leakage, no breakage and would last several years once installed. These oilers are available in both extruded Aluminum/SS metal parts. Capacity available is 100ml & 250ml. The product finds extensive use in centrifugal pumps. Dome is of PC\* and all other parts are of extruded aluminum alloy/SS.



CLO 3D BULLS EYE



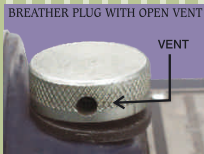
CLO GLASS DOME ADJUSTABLE HEIGHT



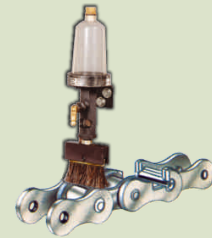
CLO PC DOME ADJUSTABLE HEIGHT

**j) Drip Oilers / Chain Oilers :**

A drip assembly with manual on/off provides oil to bush bearings, machine slides etc. These oilers incorporate a precision needle valve by which drip rate can be set. Manual on/off toggle switch is provided. Drip rate can be adjusted from a minimum of 3 drops/minute upto 20 drops /minute by adjusting precision needle valve. Once drip rate is adjusted it can be locked by a lock nut. They are available in 15ml, 35ml & 250ml capacity. Dome is of PC\* and other parts are from Brass/Carbon steel. In chain oiler a brush is fixed to the drip oiler, the brush cleans the chain and drip oiler provides oil. The brush can be replaced.



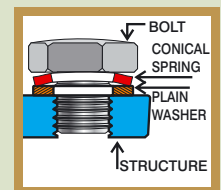
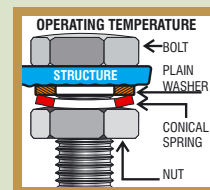
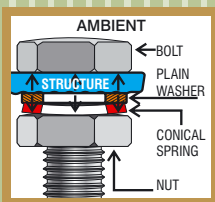
**n) Shielded Breather:-** These have a removable Cap which is push fit. A 5 micron Borosilicate Glass Filter cartridge is provided. This prevents external contaminants from getting into the machine. The Filter cartridge is replaceable.



## FLANGE APPLICATIONS

**j) Conical Springs :**

They lock bolted Assemblies by preventing loosening of NUT because of vibration or thermal expansion. They totally eliminate frequent re-tightening of UNITS. They are installed between the base frame & nut. They have to be tightened & full flattened. Can work upto 250C by using chrome vanadium steel. In many applications they replace hot bolting. Conical springs exert UNIFORM LOAD unlike spring washers and have very high LOAD CAPACITY. They are specially coated to prevent corrosion in aggressive environments. They are available in sizes from 10mm to 40mm.



Mfd. By:

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