

# Electric Tube Expansion Systems



**BHARTIYA**

TUBE TOOLS

**SHINGARE**<sup>TM</sup>  
INDUSTRIES PVT LTD





## TUBE TOOLS

# INTRODUCTION

Education is necessary but not a pre-requisite for success in life. Bhartiya Industries is the best example of this theory. Mr. Suryakant Shingare (HARIBHAI), the founder of the company is a non-matriculate technocrat with more than 10 years experience in flexible shaft manufacturing. He founded this company in 1989.



## Basic Products:

Engineering products is our forte. We manufacture engineering products such as tube expander, tube cleaner, tube tools, hydraulic tube expansion, tube pulling, and pipe beveling machines. We also deal in manufacture of flexible shaft grinders, construction equipment, hydraulic torque wrench, impact socket, pneumatic tapping machines, and many more...

## Brief History of the Company:



We were a small industry until 2003 engaged in production and supply of different types of flexible shafts for tube cleaning, brushes, flexible shaft grinder, and concrete vibrators. The year 2003 was a watershed year for the company.

**Mr. Pradip Shingare**, son of **Mr. Hari Shingare**, graduated from Mumbai University with a degree in Mechanical Engineering. He had great plans to take the company forward on the route to expansion. He ventured into export of the engineering products. By 2008, the company acquired the reputation as the largest exporter of tube cleaning machines and flexible shafts in India.

The year 2009 saw the expansion of the company into manufacture of products such as Tube expander, tube tools, and tube pulling machines. The company witnessed a record double-digit growth in this product range. In 2011, the company started developing a product range of pipe beveling machines. These machines are extremely popular in India as well as in the overseas market. The year 2013 witnessed the company foray into imports of different types of tools such as tapping tools, grinding tools, etc making us the leading player in India in these categories.

The year 2015 saw us entering into the sugar industry component with the manufacture of the Heavy Duty Sugar Dust Collector machine, FlexRepair40 machine. In 2016, we awarded with ISO 9001:2008 certification for strictly followed quality norms and processes.

## Dedicated Staff:

We have a dedicated team of more than 40 people, many of whom are with us since the early days of the company. We have an excellent blend of youth, knowledge, and experience in our ranks.

## Export oriented:

We export over 60% of our products to more than 60 countries all over the globe.

## Expansion:

We feel the need to expand our business to enable us to serve the people of this country better. With this aim in mind, we established a new company in the name of SHINGARE INDUSTRIES PVT. LTD.

**Motto: Our main motto of business is "Growth with Trust."**

We believe in the "Make in India" concept espoused by our honorable Prime Minister Shri Narendra Modi. Our mission is innovation and creation of an import substitute product in India.

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## Our Successful Participation in Trade Fairs and Conventions in INDIA and Overseas.



SISSTA BENGALURU 2015



SISSTA, CHENNAI 2016



SISSTA, TIRUPATI 2017



MAHATECH, PUNE 2015



STAI, NEW DELHI 2016

# ELECTRIC TUBE EXPANSION



TUBE TOOLS

## TORQUE CONTROLLED TUBE EXPANSION SYSTEM (Current based)

**BHARTIYA Electric Tube Expansion Drive Unit** is governed by a separate Electric Control Panel which is adjusted by a simple Digital Display. When the Electrically Driven Motor reaches the desired Torque, the Control unit Mechanism automatically shuts off the Power and on pressing the Reverse Button the Tube Expander retracts out from the Tube The Fully Automatic system ensures the Tube are rolled to maximum Expander retracts out from the Tube. The Fully Automatic system ensures the Tube are rolled to maximum tightness without excessive cold worked stress in Tube Metal which prevents injuring Tube ends or distorting Tube Sheet Ligaments.



Model No.	Phase	Supply Voltage Volts	Maximum Current AMPS	Control Panel Suitable for Drives
BTC-23010	Single	230	10	BD-0,BD-1,BD-2TS,BD-3, BM-2M5,BD-3M5, BD-2M25,BD-3M25
BTC-11020	Single	110	20	BD-0L,BD-1L,BD-2L,BD-2TSL, BM-3L,BD-2LM5,BD-3LM5, BD-2LM25,BD-3LM25

**Note:** Latest Design Highly Advanced - Micro processor based torque control unit - Also available - quote on request.



### FEATURES:

- It consists of heavy duty motors.
- Continuous cycle operation vs. Intermittent cycle operation of drives from other manufactures.
- High torque to weight ratio.
- Spare parts are easily available worldwide.

Drive Model		No Load Speed R.P.M	Expansion Range		Full Load Current APMS		Full Road Torque KGM	Drive Weight KGS.
230V	110V		S.Steel Tube O.D/M.M	Copper Tube O.D/M.M	230V	110V		
BD-0	BD-0L	700	6 to 12	8 to 16	1.3	2.6	0.36	2.6
BD-1	BD-1L	550	10 to 16	13 to 22	2.6	6.8	0.46	6.8
BD-2	BD-2	560	16 to 28	19 to 34	2.7	8.0	1.26	7.7
BD-2TS	BD-2TS	1380/560	16 to 28	19 to 34	2.75	5.5	2.2/3.0	5.4
BD-3	BD-3	270	25 to 45	38 to 65	6.0	12.0	3.0	11.3
BD-2LM5	BD-2LM5	112	25 to 50	38 to 70	4.0	8.0	3.8	10.0
BD-3LM5	BD-3LM5	56	25 to 57	38 to 100	6.0	12.0	12.0	16.0
BD-2M25	BD-2LM25	21	38 to 63	-	4.0	8.0	31.5	15.0
BD-3M25	BD-3LM25	11	50 to 104	-	6.0	12.0	48.0	19.0

## ELECTRIC TORQUE CONTROLLER (Wattage Based):



- Fully Solid State Design - no moving parts - no wear and tear - no noise - consequently long life.
- Uses the latest micro-controller chip for control functions.
- Uses one main circuit board for easy maintenance.
- Accurately calibrated digital torque setting with a resolution of 1 watt makes torque settings accurate and can be easily reproduced for identical results.
- Connected drive is automatically recognized & indicated by means of LED on the torque controller.
- Soft start has been provided for all drives, which reduces starting currents in the drive. As a result, life of carbon brushes & drive increases.
- Torque setting arranged in four different ranges to suit four different drives. Appropriate wattage range is automatically selected for the connected drive, hence drives can not be abused or overused.
- Actual drive wattage (torque) is displayed. Set wattage (torque), drive current and line voltage can be seen by Press of a button.
- Adjustable reverse time from (1 sec to 100 secs.)
- Trip time adjustable from (0.1 sec to 10 secs.)
- Pause time (time interval between cycles) adjustable from ( 1 sec to 100 secs.)
- Manual reverse by push button, in case of emergency.
- Drive Speed adjustable in reverse rotation.
- Hand (trigger) mode or foot switch mode, both are available.
- Expansions can be carried out either in single cycle mode or auto repeat mode.
- MCB has been provided to protect the drives against over current by short circuits.
- Plug in type PCBs reduce down time to minimum during trouble shooting.
- LED indicators provided for forward, reverse & trip conditions of drive.
- Superior SCR technology has been incorporated rather than triacs. SCRS have much better voltage, current & dv/dt ratings than triacs. This leads to greater reliability & the power circuit becomes almost failsafe.
- All the spares inside the panel viz : PCBs, Transformers, CT, Relays DPM etc. Can be replaced by use of only a screw driver.
- PC/Printer compatible.

Model No:	Voltage Single Phase 50/60 Hz	Weight Kg
TCW-09-110	110V	11.0
TCW-09-230	230V	11.0

**Note:** Voltage Stabilizers for use with TCW torque controllers. All TCW torque controllers are supplied with operation manuals.

## ELECTRICALLY OPERATED DRIVE UNITS FOR WATTAGE BASED TUBE EXPANSION MACHINE



### FEATURES:

- It consists of heavy duty German Made motors.
- Continuous cycle operation vs. Intermittent cycle operation of drives from other manufactures.
- High torque to weight ratio.

Drive Model		No Load Speed R.P.M	Expansion Range		Full Load Current APMS		Drive Weight KGS.
230V	110V		S.Steel Tube O.D/M.M	Copper Tube O.D/M.M	230V	110V	
MPG-0N	MPG-0L	2800	6 to 10	6 to 12	2.6	2.6	2.0
MPG-1N-	MPG-1L-	1000	10 to 16	13 to 20	6.0	6.0	2.5
MPG-1N-	MPG-1L-	1900	8 to 13	11 to 16			
MPG-2N-	MPG-2L-	480	16 to 45	16 to 50	12.0	12.0	7.5
MPG-2N-	MPG-2L-	1080	16 to 32	16 to 38			
MPG-3N-	MPG-3L-	130	25 to 76	25 to 102	12.0	12.0	8.5
MPG-3N-	MPG-3L-	430	25 to 50	25 to 76			

## VOLTAGE STABILIZER / TRANSFORMERS

**For use with Torque Controllers**

### FEATURES:

- Digital display of output voltage.
- Used in on site application and areas which has high voltage fluctuations.



Model No:	Input Voltage (v)	Output Voltage (v)
VS1BB	160-260	103-108
VS2BB	160-260	215-245



## ACCESSORIES FOR ELECTRIC TUBE EXPANSION SYSTEM



### FEATURES:

- Heavy Duty Sheet Metal Construction.
- Conveniently houses all tools needed for expanding tubes.

Model No.	Description
FS-1	Set of 3 Foot Switches
TCW	Torque Controller
TR-1	Collapsible Trolley-Stainless Steel
SWF-5	Spring Balancer
SB-1	Swivel Bracket
MP	Electric Drive
TS	Telescopic Shaft

## TELESCOPIC SHAFTS

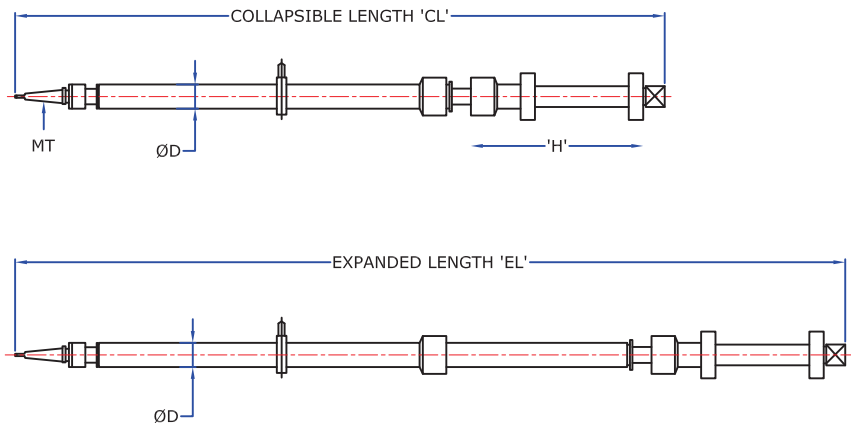


# ELECTRIC TUBE EXPANSION



TUBE TOOLS

## TELESCOPIC SHAFTS



### FEATURES:

- Used to free the operator from handling drives.
- Study construction absorbs all torque during tube expansion.

Model No.	MT Shank	CL MM	EL MM	Handle Length 'H' mm	D MM	For Use with Drive Model	Weight kg	Supplied with Quick Change Chucks and Adaptors of Following Sizes
TS-1 E	2 MT	850	1250	200	38.1	MP-2	2.75	3/8", 1/2", 3/4"
TS-2 E	3 MT	1000	1505	225	38.1	MP-3	5.75	1/2", 3/4", 1"
TS-3 E	3 MT	1000	1400	230	51.0	MP-3	9.20	1/2", 3/4", 1"

## QUICK CHANGE CHUCKS AND ADAPTORS

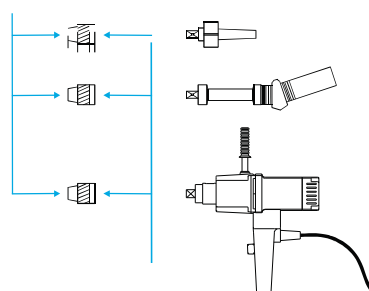
### FEATURES:

- For use directly with Rolling Motors-electric, Hydraulic and Pneumatic.
- For use with Telescopic Shafts.
- Any combination possible for use with any manufacturers equipment.
- Specify square size and thread type (if applicable) on either end of quick change chuck/adaptor when ordering.



**Quick Change Chuck**

Specify Square Size  
(to couple to expander mandrel square)

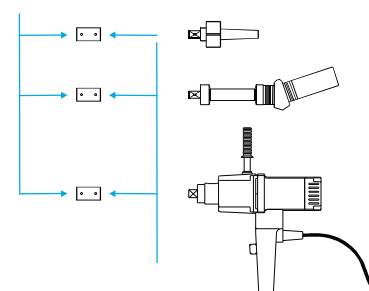


Specify Square or thread Size  
(to couple to rolling motor/telescopic shaft)



**Adaptor**

Specify Square Size  
(to couple to expander mandrel square)



Specify Square or thread Size  
(to couple to rolling motor/telescopic shaft)



## OUR MAJOR CLIENTS

Please see below our robust and valued client list that uses BHARTIYA products repeatedly. We take pride in our partnerships and the ability to grow with such amazing group of companies.



LARSEN & TOUBRO



Reliance  
Industries Limited



SHINGARE  
INDUSTRIES PVT LTD

SHINGARE INDUSTRIES PVT. LTD.  
Formerly known as Bharatiya Industries

Manufacturer & Exporter of Tube Cleaners, Flexible Shafts, Tube Tools, Pipe Beveling Machines, Torque Tools, Grinding Tools, Tapping Tools.

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