

TUBE TOOLS



TUBE TOOLS

For Tube I.D.
1.1/8" to 6"



Evaporator Or Boiler
Tube Cleaner

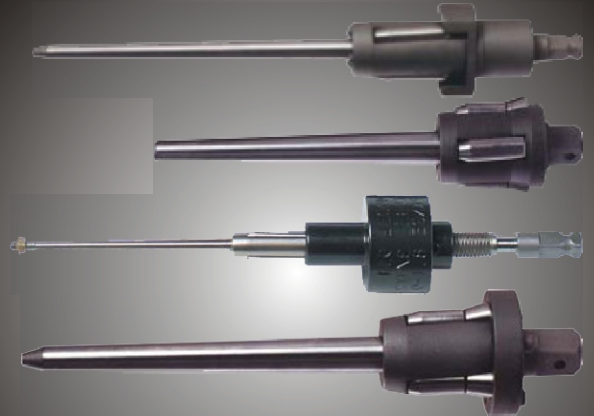
For Tube I.D.
1/4" to 1"



For Condenser, Chillers,
Heat Exchanger & Tube Cleaner



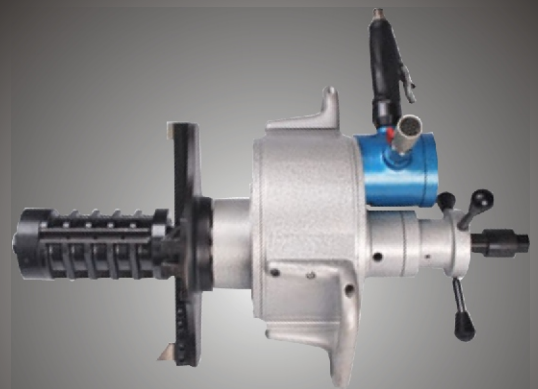
Pneumatic Tube Cleaners



Tube Expander



Tube Expansion System



Pipe Facing & Beveling Machines

INTRODUCTION

Building upon a solid knowledge and expertise of Tube Tools, **BHARTIYA INDUSTRIES** was established in **1989** by Mr. Haribhao Shingare, who introduced first product of this company, a Flexible Shafts & Assemblies.

From that initial product, over 150 products diversified application in Tube tools, Bolting Tools, Grinding Tools, Tapping Tools, are now offered by **BHARTIYA INDUSTRIES**.

BHARTIYA's commitment to excellence begins with using the highest quality materials. The company's engineering experts are constantly working to provide customers with a broad range of TOOLS in a wide variety of raw material, & metal grades.

BHARTIYA takes pride in the fact they were selected to be the supplier in some of the nation's landmark institutions & companies (BARC, NPCIL, ONGC, BHEL, Reliance, Godrej, Bombay Dyeing, Indian Rail, etc.).

With exports to more than 30 countries world-wide, a key component of the BHARTIYA difference is its outstanding customer service. This includes technical advice for proper product selection, customer based designing & prompt delivery of quality tested products.

The company is currently in pursuit of ISO 9000/2000 certification.

BHARTIYA INDUSTRIES is committed to be successful in its chosen markets by utilizing the principles of continuous quality improvement to enhance the security for all; this extends beyond producing the highest quality products in our industry.

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BOILER TUBE CLEANERS

1.1/4" - 6"
Tube I.D.

Flexible Shaft Machine ('BFM' Series):

It is a 3 phase electric motor (2800 rpm) mounted on 3 wheel trolley fitted with a carrying trolley. Horse power of motor is selected depending upon the length & size of shaft, and type of scaling. Push button starter is provided to control the motor. Each machine is fully wired, carefully tested & fitted with a 10 ft. Length (Or longer if required) PVC cable to main supply. Motors are available in enclosed system as well as in open system (i.e. Without covering of above motor).

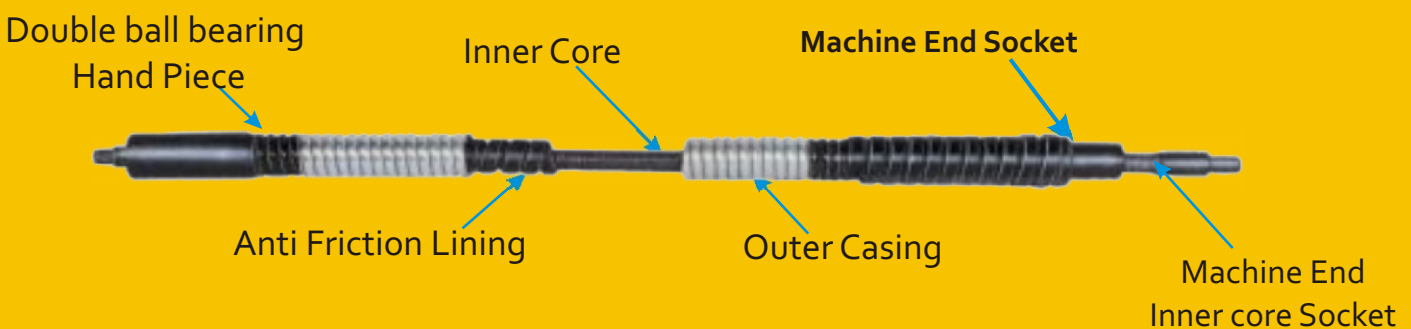
Please contact us if your electrical specification is different from below mentioned. Machine for alternate supply are also available.



Model No.	Motor Power		Electric Supply	Speed RPM	Tube I. D.	
	HP	kW			Mm.	Inch
BFM -30	3.0	2.238	3 Phase 50 C/S A/C 400/440V	2800	22.0- 38.10	0.86"-1.1/2"
BFM -50	5.0	3.730		2800	38.10-101.6	1.1/2"- 4.0"
BFM-75	7.5	5.62		2800	38.10-152.4	1.1/2"- 6.0"
BFM- 50M	5.0	3.730		2800,1400,910	38.10-152.4	1.1/2"- 6.0"

NOTE: Flexible Shaft Machines are also available with closed system.

Flexible Shaft Machine ('BFM' Series)



It is used for cleaning of tube by transmitting power in terms of rotation from the motor unit to tool head cutter or brush within tube.

INNER CORE:

It is flexible wire with multiple wound opposite layer. It is made of high tensile spring steel or stainless steel (as per requirement) and passed through heat treatment processes to make it absolutely vibration free.

Outer Casing:

It is flexible, double interlocked, circular rounded, made of galvanized steel strip, Special spring steel lining is provided within outer casing to avoid any friction between inner core & outer casing.

Connection:

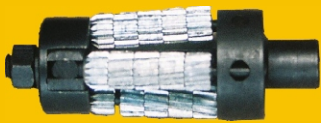
One end of shaft with machine end socket is attached to suitable motor and other end is attached to tool end.

Flexible Shafts

INNER CORE DIA MM (INCH)			12-13MM (½")	15-16MM (5/8")	19.0 MM (3/4")	20.0 MM
OUTER CASING MM (INCH)			24.0 MM (15/16")	29.0 MM (1.14")	33.0 MM (1.3")	34.0 MM
LENGTH						
Mtrs.	Feet	Sr. No.	MODEL NO.	MODEL NO.	MODEL NO.	MODEL NO.
6.0	20.0	1	BFS-105-20	BFS-106-20	BFS-107-20	BFS-108-20
7.5	25.0	2	BFS-105-25	BFS-106-25	BFS-107-25	BFS-108-25
8.0	27.0	3	BFS-105-27	BFS-106-27	BFS-107-27	BFS-108-27
9.0	30.0	4	BFS-105-30	BFS-106-30	BFS-107-30	BFS-108-30
10.0	33.0	5	BFS-105-33	BFS-106-33	BFS-107-33	BFS-108-33
12.0	40.0	6	BFS-105-40	BFS-106-40	BFS-107-40	BFS-108-40
15.0	50.0	7	BFS-105-50	BFS-106-50	BFS-107-50	BFS-108-50
18.0	60.0	8	BFS-105-60	BFS-106-60	BFS-107-60	BFS-108-60
20.0	65.0	9	BFS-105-65	BFS-106-65	BFS-107-65	BFS-108-65
25.0	82.5	10	BFS-105-82	BFS-106-82	BFS-107-82	BFS-108-82
30.0	100.0	11	BFS-105-100	BFS-106-100	BFS-107-100	BFS-108-100
Spare Inner Core Per Meter			BIC-105	BIC-106	BIC-107	BIC-108
Spare Outer Casing Per Meter			BOC-105	BOC-106	BOC-107	BOC-108
Spare Hand Piece			BHP-105	BHP-106	BHP-107	BHP-108

TOOL HEAD CUTTER

'CT' Series Tool Head Cutter



OPEN BODY



CLOSED BODY

Purpose: For rapid removal of hard scale.

Description: It has 15 cutter wheels (4 straight wheels, 4 left wheel, 4 right wheel & 3 bevel wheels). They are spring loaded & self expanding.

Size: For tube I. D. From 31mm to 53mm.

'T' Series Tool Head Cutter



T SERIES

'T' Series :

Purpose: For cleaning straight and curved tubes as found in boiler, air heaters.

Description: This head cutter is provided with three wheels, one each of straight teeth, teeth cut right hand, teeth cut left hand for quicker cleaning and to prevent grooving of scale.

Size: Tube I. D. From 31mm to 102mm

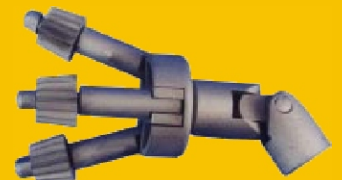
NOTE: '2 Layer & 3 Layer tool head cutters also available in 'T' series cutters.

'YT' Series Tool Head Cutter

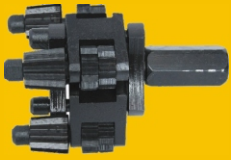
'YT' Series :

Purpose: For fine cleaning of curved or bend tubes.

Description: It has pivoted arms and cutter head which contacts every part of tube due to centrifugal force. Size: For tube I. D. From 32mm to 102mm.



'SA' TYPE CUTTER HEADS



For Tubes/Pipes 2"-4" (51.0mm-101.6mm) I.D.
These Cutter Heads have 3 to 5 freely pivoted arms, activated centrifugally, which swing out to give access to any part of tube wall.

'P&TC' TYPE CUTTER HEADS



The model "p" & "TC" cutter head is used for cleaning straight tube from 1-1/2" I.D. Through 7" I.D. It is usually direct coupled to drive motor but flexible coupling, universal joints or flexible holder, are used to negotiate curved or bend tubes. The model "P" & "TC" is for heavy and hard tube deposits as found in refinery and still tube. It is though in its part and assembly as necessary to stand up in this service and it makes economical "P" & "TC" is conformed to do its work quickly and thoroughly even when deposits are of varying thickness and hardness.

CARBIDE DRILL



Carbide Drills used for cleaning tubes choked solidly with hard deposits.
Size 1/4 m (6.4 m) - 2 1/ (50.8 mm)

WIRE BRUSHES



Male Threading



Female Threading

TURK HEAD BRUSH: (1" - 6")

Max. Size of brush: 6" (152.4mm)

Purpose: For removal of light scale from pan, evaporator, juice heaters tube.

CUP SHAPE BRUSH (1.1/2" - 6")

Max. Size of brush: 6" (152.4mm)

Purpose: For cleaning more space or where rotary brush can not be used.

CIRCULAR WHEEL BRUSH (1.1/2" - 6")

Max. Size of brush: 6" (152.4mm)

Thickness: 1/2" to 2"

Purpose: For polishing, deburing & cleaning of tube

BWBA (1.1/2" - 6")

Max. Size of Brush: 4" (101.6mm).

Wire fill Material: Steel, Stainless Steel.

DOUBLE SPIRAL BRUSHES (1/4" - 8")

Max. Size of Brush: 8" (203.2mm)

Wire fill Material: Steel, Brass, Stainless Steel.



CUP SHAPE BRUSH



CIRCULAR WHEEL BRUSH



DOUBLE SPIRAL BRUSHES



'BWBA'

PNEUMATIC BOILER TUBE CLEANERS

FOR BOILERS & HEAT EXCHANGER TUBES

1.1/2" - 4"
Tube I. D.



6000 SERIES AIR MOTOR

Powerful short design of Air Motor is ideal for negotiating short radius bends when cleaning curved tubes. Precision slip-fit motor construction means no special tool required for assembly and disassembly. Thrust plate motor packs plenty of power to operate all types of cleaning heads. Shown with forward swing arm type cleaner head and universal joint.

6300 SERIES AIR MOTOR

Thrust plate type motor specially designed for straight tubes motor parts slip-fit together for easy assembly without special tools. The motor operates at full power for high speed, heavy duty performance.

Sr. No.	Tube ID		Bend Tube	Straight Tubes
	MM	Inches	Model	Model
1	42.0-50.8	1.5/8-2	B6051	B6351
2	50.8-57.1	2-2.1/4	B6057	B6357
3	57.1-63.5	2.1/4-2.1/2	B6063	B6363
4	63.5- 69.9	2.1/2-2.3/4	B6069	B6369
5	69.9-76.2	2.3/4-3	B6076	B6376
6	76.2-88.9	3.-3.1/2	B6088	B6388
7	88.9-101.6	3.1/2-4	B6101	B6401

NOTE: A. 6000 SERIES, AIR MOTOR CAN BE USED FOR STRAIGHT TUBES ALSO,
B. TUBE CLEANER AIR MOTOR FROM 3/4" TO 1.1/2" OR ABOVE 4" TO 6" CAN BE SUPPLIED AGAINST SPECIFIC REQUIREMENT

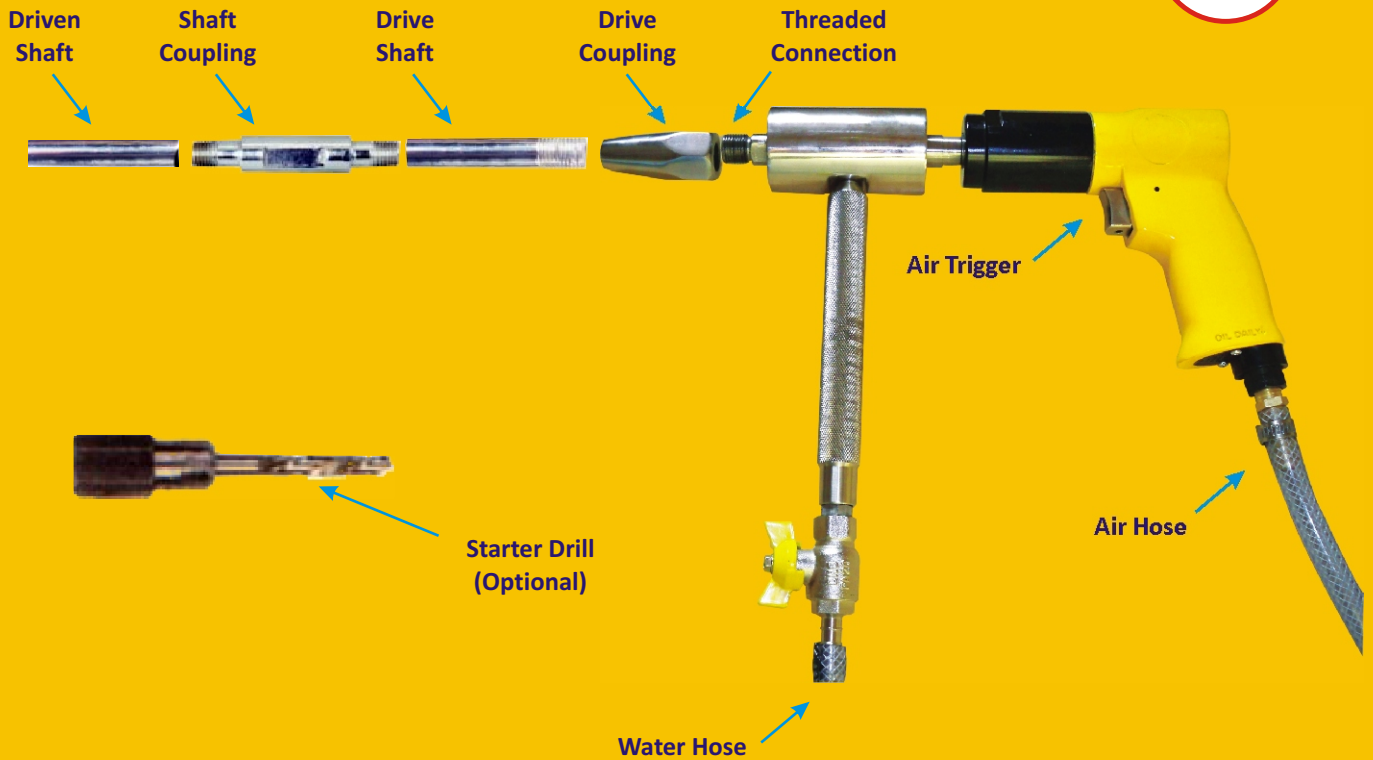
FEATURES

- The safe way to remove tough deposits from curved or straight tubes.
- Standard models available for 19 to 140 mm I.D. On request, BHARTIYA can supply heads for up to 500 mm I.D. Tubes.
- Recommended for all places where danger of explosion exists.
- Air-driven rotary motor 3000-6000 RPM under no load. No overheating Efficient. Very durable.
- Automatic cut-out with torque overload prevents tube wall damage.
- Self-cleaning heads. Air blast clears away loose scale; cools cutters heads.
- Versatile range of standard cutters.
- Air motor have a simple design with few moving parts, which provide trouble free operation with minimum of maintenance.

HAND HELD PNEUMATIC TUBE CLEANERS

Portable Pneumatic Tube Cleaners

3/16"-2"
Tube I. D.



- Portable pneumatic tube cleaners use hollow aircraft quality shafts of different diameters as per tube I.D. to be cleaned, which can be coupled together to form the length of the tube to be cleaned.
- Water flows through the hollow tube and flushes out deposits that are loosened by the cleaning tools attached to the hollow shaft. Tools used for cleaning are carbide drills, for severely clogged tubes, brushes for light deposits, and buffing tools for final polishing. The rotation of the air motor and the water flow are controlled independently.

Model No.	Motor Power		Tube ID		Speed RPM	Air Supply		Water Supply		Weight	
	HP	kW	Inch	mm		Min.	Max.	Min.	Max.	lbs.	kg.
BC - 20	0.6	0.45	3/16-1	4.8-25.4	700	60psi@16cfm	90psi@16cfm	30psi	100psi	5.72	2.6
BC - 330	1	0.746	7/8-2	22.2-51.0	1000	90psi@20cfm	90psi@40cfm	30psi	100psi	6.60	3.0

- Model BC-20 is generally used for oil coolers, small heat exchangers and condensers.
- Model BC-330 is generally used for large diameter tubes of process equipment condensers and heat exchangers.

Cleaning Tools for Portable Pneumatic Tube Cleaners

3/16"-2"
Tube I. D.



Carbide Drills



Nylon Brushes



Brass Brushes



Stainless Steel Brushes



Buffing Tools

Note : For model nos. of all tools, please send us your enquiry.

CONDENSER/HEAT EXCHANGER TUBE CLEANERS

ELECTRIC TUBE CLEANERS: ('BPC-5' SERIES)

In Electric Tube Cleaner, the brushes or other cleaning tools are rotated through a tube at tip of flexible shaft. Simultaneously water gets injected, hence loosen deposits leaving tubes cleaned. Flexible shafts ensure use in bent tubes.

All models consist of tool storage box, single direction foot switch, mobile dolly.

1 direction air foot switch is optional.

☞ All units are available with following specifications :

115 v 60 Hz, 115 v 50 Hz - 9 Amps

220 v 60 Hz, 220 v 50 Hz - 4.5 Amps

While ordering, please mention electric specifications.

Model No.	Motor		Tube ID		Speed RPM
	HP	kW	inch	mm	
BPC-3	0.75	0.56	1/4 -1	6.4 - 25.4	910
BPC-4	1.00	0.75	1 & up	25.4 & up	910
BPC-5	2.00	1.50	1 & up	25.4 & up	910
BPC-6	2.00	1.50	1 & up	25.4 & up	1440



PORTABLE TUBE CLEANER : ('BPC-P' SERIES)

BPC- P is a portable machine which can be carried by technician on the move. Flexible shaft rotates at speed of 1740 rpm and water gets injected simultaneously through the nylon casing to the cleaning tool. As the tool removes the deposits, the water flow flushes them out. A solenoid valve ensures that water flows only when machine is running.

☞ All units are available with following specifications :

115 v 60 Hz, 115 v 50 Hz - 9 Amps

220 v 60 Hz, 220 v 50 Hz - 4.5 Amps

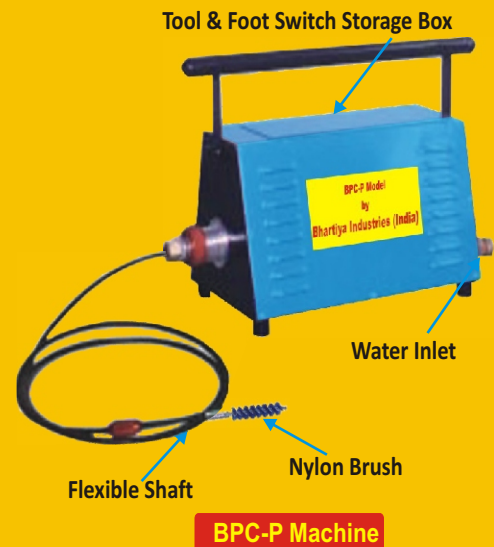
While ordering, please mention electric specifications.

Model No.	Motor		Tube ID		Speed RPM
	HP	kW	inch	mm	
BPC-P	0.50	0.40	1/4 -1	6.4 - 25.4	1440

All units available with various electrical specification:

115v 60 Hz, 115v 50Hz - 9 Amps. 220v 60 Hz, 220v 50Hz -4.5 Amps. Please specify while ordering.

Above machines are also available with PNEUMATIC motors and accessories



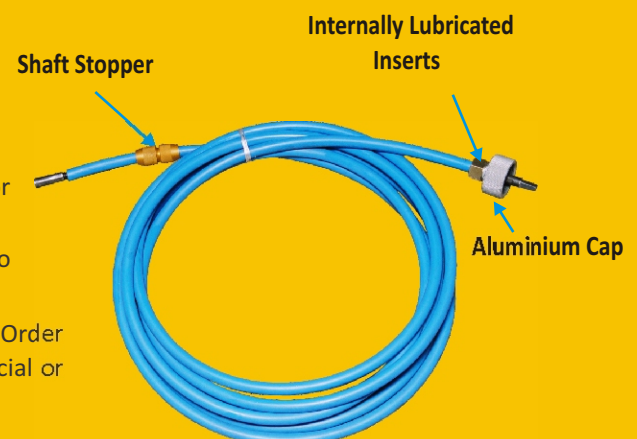
FLEXIBLE SHAFTS

For BPC-2 & BPC-3, Flexible Shaft with stainless steel inner core can be supplied if specified by client.

While ordering flexible shafts & accessories, each item should be ordered for specific tube/pipes size or size range.

Stainless steel inner core ensures our shafts have longest life, resistance to corrosion,

To order flexible shaft (s) determine tube I.d. & Length of longest tube (s). Order flexible shaft(s) to correspond with tube I. D.(s), & length. Please ask for special or longer length.



Tube ID range Mm. Inch		Flexible Shaft Model No.	Flexible shaft Length		Nylon Casing O. D.		Inner Core O. D.		Tool End Thread
			Feet	Mtrs.	Inch	Mm	Inch	Mm	
6.4-9.5	1/4-3/8	NFSC-701-12	12	3.7	1/4	6.4	1/8	3.2	8-32 F
		NFSC-701-25	25	7.6					
11.1-12.7	7/16-1/2	NFSC-702-12	12	3.7	3/8	9.5	1/4	6.4	1/4-28 F
		NFSC-702-17	17	5.2					
		NFSC-702-25	25	7.6					
		NFSC-702-35	35	10.7					
		NFSC-702-45	45	13.7					
14.3-25.4	9/16-1	NFSC-703-12	12	3.7	1/2	12.7	5/16	7.9	1/4-28 F
		NFSC-703-17	17	5.2					
		NFSC-703-25	25	7.6					
		NFSC-703-35	35	10.7					
		NFSC-703-45	45	13.7					
		NFSC-703-60	60	18.3					
16-22	5/8-7/8	NFSC-704-13	13	4.0	9/16	14.3	3/8	9.5	1/4 - 28 F
		NFSC-704-18	18	5.5					
		NFSC-704-26	26	7.9					
		NFSC-704-36	36	11.0					
		NFSC-704-46	46	14.0					
		NFSC-704-61	61	18.4					
		NFSC-704-76	76	23.2					
22-35	7/8-1.3/8	NFSC-705-16	16	4.9	3/4	19.1	1/2	12.7	1/2 - 12 F
		NFSC-705-26	26	7.9					
		NFSC-705-36	36	11.0					
		NFSC-705-51	51	15.5					

MODEL BPC5-45 CHILLER TUBE CLEANING SYSTEM

Model No. BPC5-45 chiller tube cleaning system uses a 2 HP motor for tougher deposits. Pneumatically operated single directions foot switch is provided for cleaning internally enhanced tubes.



BPC-5



Flexible Shaft



Crimping Tool



Repair Kit

CONTENTS

BPC-5 Tube cleaners-1 | NFSC-703-45 Flexible Shafts-2 | Nylon Brush (Specify Size)- 25 | Two Direction Foot Switch-1 | Repairing kit for flexible shaft NFSC-703 consisting of 4 drive couplings, 4 tool end couplings, 1 crimping tool with punch, 1 flexible shafts lubricator, & 2 bottles of lubricant Tubes.

HIGH PRESSURE WATER JET CLEANING MACHINE & PUMP

BHARTIYA INDUSTRIES is specialized in Designing, Manufacturing, Marketing and Servicing of High Pressure Pump for various application in all industrial segments.

The Pumps are designed and manufactured indigenously under strict quality control and also supported by a prompt after sales services. The Pump units are complete with Prime Mover (Electric Motor / Diesel or Gas Engine), Speed Reduces (Pulley drive / Gear Box), Control Panel, Standard accessories like relief valve, pressure gauge and regulating valves. Mountings either on Base plate Oil field Skid, or Trailers depending on customer requirements.

WATER JETTING & WATER BLASTING:

High pressure water jetting or water blasting technology has been used for multiple industrial applications around the world, and is recognized for its capability to provide powerful, environmentally safe ways of solving difficult Cleaning, cutting and surface preparation problems. We manufactures pumps for specifically for these applications and has a different models with power up to 500 HP, Discharge flow up to 1000 LPM & pressure up to 2000 Bar.

MODEL No.	Maximum Pressure (Bar/Psi)	Water Flow Rate	Motor - HP & Power	Power
BHP/10030E	100/1450	30	7.5	Three Phase
BHP/15030E	150/2175	30	10	Three Phase
BHP/20021E	200/2900	21	10	Three Phase
BHP/25021E	250/3625	21	12.5	Three Phase
BHP/35021E	350/5075	21	20	Three Phase
BHP/50021E	500/7250	15	20	Three Phase
BHP/70023E	700/10150	23	40	Three Phase
BHP/75023E	750/10875	50	100	Three Phase
BHP/120023E	1200/17400	34	100	Three Phase
BHP/70023E	700/10150	84	150	Three Phase
BHP/110023E	1100/15955	52	150	Three Phase



ACCESSORIES



Suction Hose
Delivery Hose
Flexible Lance
Rigide Lance



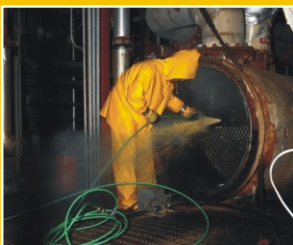
High Pressure Gun
High Pressure Foot Valve
Hose Reel
Nozzle carrier



Wet Blasting Attachment
Surface/Gate cleaners
Rotojet

Fields of application

- Automobile Industry
- Cement Industry
- Ship Building
- Chemical Industry
- Municipal Services
- Oil & Gas Refinery
- Offshore Exploration
- Pulp & Paper Industry
- Food & Beverage Industry
- Iron & Steel Industry
- Power & Mining Industry



TUBE CLEANER SELECTION GUIDE

TUBE CLEANER QUICK SELECTION

Vessel	Type of Tube	Deposit	Machine	Cleaning Tools
Heat Exchanger Condenser	Non-Ferrous Straight 1/4"-1" (6.4-25.4mm)	Soft Deposits	BPC-3, BPC-4, BPC-P	Nylon Brush
Heat Exchanger Condenser	Non-Ferrous Straight 1/4"-1" (6.4-25.4mm)	Medium to Hard Scale	BPC-4, BPC-5	Carbide Drill
Heat Exchanger Condenser	Non-Ferrous U-Tube 1/2"-1"(12.7-25.4mm)	Soft Deposit	BPC-3, BPC-4, BPC-P	Cup Brush, Wheel Brush
Heat Exchanger Condenser	Non-Ferrous U-Tube 1/2"-1"(12.7-25.4mm)	Hard Scale or Blockage	BPC-5, BPC-6	Cobalt Tip Top
Heat Exchanger Condenser	Ferrous Straight 1/4"-1"(6.4-25.4mm)	Soft Deposit Light Scale	BPC-3, BPC-4, BPC-P	Stainless Steel brush
Heat Exchanger Condenser	Non-Ferrous U-Tube 1/2"-1"(12.7-25.4mm)	Too Hard Scale	BPC-5, BPC-6	Carbide Drill, Wheel Brush Toll
Heat Exchanger Condenser	Non-Ferrous U-Tube 1/2"-1"(12.7-25.4mm)	Soft Deposit light Scale	BPC-4, BPC-5, BPC-P	Cup Brush, Wheel Tool
Heat Exchanger Condenser	Non-Ferrous Straight 1/4"-1" (6.4-25.4mm)	Hard Scale or Blockage	BPC-6	Cobalt Tip Tool
Heat Exchanger Condenser	Non-Freeous or Ferrous Straight	Medium to hard Scale	BC-10 with Hollow Tube	Buffing Tool with Drill Tip, Drill
Heat Exchanger Condenser	Ferrous 3/16"-3/8" I.D.(4.8-9.5mm)	Hard Scale Blockage	BC-10	Hollow Drills (other diameters and lengths available on request.
Heat Exchanger Condenser	Non-Ferrous or Ferrous Straight 3/16"-3/8" I.D.	Hard Scale Blockage	BC-315	Carbide Drills
Heat Exchanger Condenser	7/8"-2" I. D. (22.2-51.0mm)	Choked Tubes	BC-10	Carbide Drills
Heat Exchanger Condenser	Non-Ferrous or Ferrous Straight	Medium to Hard Scale	BC-10 with Hollow tube	Carbide Drills
Heat Exchanger Condenser	3/16"-1" I. D. (4.8-25.5mm)	Deposit	BPC-5, BPC-6	Buffing tool, Wing Tool-Flexible Arm-Carbide ball Tip,
Heat Exchanger Condenser	Non-Ferrous Straight 1"-14" I. D.	Soft Deposit	BPC-5	carbon Steel Brush
Heat Exchanger Condenser	Ferrous Straight 1"-14" I.D.(25.4-355.6mm)	Soot and Light Scale	BFM-50, BFM-75	Double spiral brush, Tool Head Cutter
Fire Tube Boiler	Straight Steel 1.3/8"-4" O. D. (35.0-101.6mm)	Soft & Light Scale	BPC-5, BPC-6	Nylon Brush and plastic Brush
Fire Tube Boiler	Straight Steel 1.3/8"-4" O. D. (35.0-101.6mm)	Medium To Hard Scale	BPC-5	Buffing Tool, CBTS Series Brush
Vacuum Pan, JuiceHeater	Straight Steel 1.3/8"-4" O. D. (35.0-101.6mm)	Medium To Hard Scale	BFM-30	Scraper Tool, Cone Cutter Tool, Wing Tool-Stif Arm Cutter
Vacuum Pan, JuiceHeater	Ferrous Straight 1.18"-1.49" I.D. (30.0-38.0mm)	Soft Deposits, light Scale	BFM-50	HZ Cutter, H Cutter, TH Brush, WBA brush, DS Brush
Vacuum Pan, JuiceHeater	Ferrous Straight 1.53"-2.55" I.D. (38.4-65.0mm)	Medium to Hard Scale	BFM-75	DS Brush, WEB Brush
Water Tube Boiler	Ferrous Straight 2.59"-3.93" I.D. (66.0-100.0mm)	Medium to Hard Scale	BFM-50	Tool Head Cutter, Wing Tool-Flexible Arm-Carbide Ball
Water Tube Boiler	Straight Steel 1"-3.1/4" I.D. (25.4-82.6)	Hard Scale	BFM-50	Tool Head Cutter, Turk Head Brushes



WE EXPORT TO MORE THAN 35 COUNTRIES

MORE THAN 30% OF OUR PRODUCTS EXPORT ACROSS THE GLOBE.

CLEANER SPECIFICATIONS QUICK REFERENCE GUIDE

Model	Tube Size	Motor Power	Source	Speed
BPC-3	1/4"-1" I.D (6.4-25.4mm)	3/4 HP (0.60kW)	Electric 110 or 220v, 50 or 60 Hz	910 rpm
BPC-4	1/4" & UP (6.4mm & UP)	1 HP (0.75 kW)	Electric 110 or 220v, 50 or 60 Hz	910 rpm
BPC-5	1/4" & 1.1/2" (6.4mm-38.1mm)	2 HP (1.50kW)	Electric 110 or 220v, 50 or 60 Hz	910 rpm
BPC-6	1/4" & 1.1/2" (6.4mm-38.1mm)	2 HP (1.50kW)	Electric 110 or 220v, 50 or 60 Hz	1440 rpm
BPC-P	1/4"-1" I.D. (6.4mm-25.4mm)	1/2 HP (0.40kW)	Electric 110 or 220v, 50 or 60 Hz	1440 rpm
BC-10	1/2" - 1.1/4" (12.7mm-32.0mm)	0.6 HP (0.45kW)	Air:Min.60psi@16cfm	700rpm
BC-330	7/8"-2" (22.1mm-50.8mm)	1HP (0.75kW)	Air:Min.90psi@20cfm	1000 rpm
BFM - 30	0.86"-1.1/2" (22.0mm-38.1mm)	3HP (2.238kW)	Electric 440 or 220v, 50 or 60 Hz	2800rpm
BFM -50	1.1/2"-4" (38.1mm-101.6mm)	5HP (3.73kW)	Electric 440 or 220v, 50 or 60 Hz	2800rpm
BFM -75	1.1/2"-6" (38.1mm-152.4mm)	7.5HP (5.62kW)	Electric 440 or 220v, 50 or 60 Hz	2800rpm

BOILER TUBE EXPANDER

7/8" - 8"
Tube O.D.

'BA' SERIES (3 PLAIN ROLLERS)



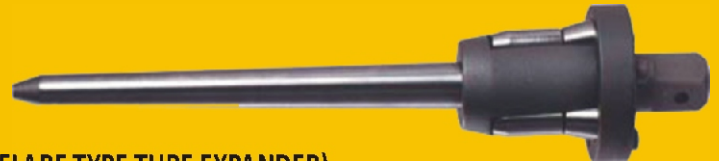
(PARALLEL TYPE TUBE EXPANDER)

Sizes Available : 7/8" O.D. to 4½" O.D.
Models Available : BA-31 to BA-102

FEATURES:

Time tested, durable design.
Sturdy construction with rolls self contained in cage.
Best 'Value for Money' tool in the world when parallel rolling tubes.

'BAF3' SERIES (3 PLAIN ROLLERS, 3 FLARE ROLLERS)



(FLARE TYPE TUBE EXPANDER)

Sizes Available : 7/8" O.D. to 4½" O.D.
Models Available : BA-31 to BA-102

FEATURES:

Time tested, durable design.
Sturdy construction with rolls self contained in cage.
Best 'Value for Money' tool in the world when parallel rolling tubes.
Use - Economical tool used for applications where tubes are to be expanded with flaring.

'B114' SERIES



(4 Plain Rollers & 2 Flare Rollers)

Sizes Available : 2" O.D. to 4½" O.D.

FEATURES:

Overlapping rolls prevent ridging of tube.
Can be converted for parallel expansion use enquire with us.
Self retained rolls in cage.

Use: General purpose expander for expanding and flaring boiler tubes, water wall, downcomer, economizer, riser, & air heater tubes

'BSB' SERIES



(TUBE EXPANDER WITH 5-Plain rollers)

Sizes Available : 1.1/2" O.D. to 4½" O.D.
Models Available : BSB-00A TO BSB-27C

FEATURES:

'BSB' SERIES

(Parallel Type- 5 Plain rollers)

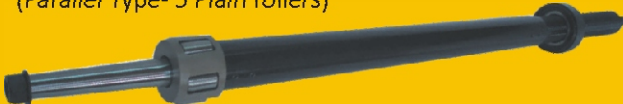
'5-Roll' Design is used primarily for rolling thin walled tubes used in sugar mill pan, juice heaters etc.

'5-Roll' gives a more concentric, uniform expansion vs a 3 roll expander in thin tubes & reduces spring back action
Time tested, durable design.

Use: For TOP Plate Tube Expansion in Pan, Juice heaters

LONG REACH 'BCSB' SERIES

(Parallel Type- 5 Plain rollers)



FEATURES:

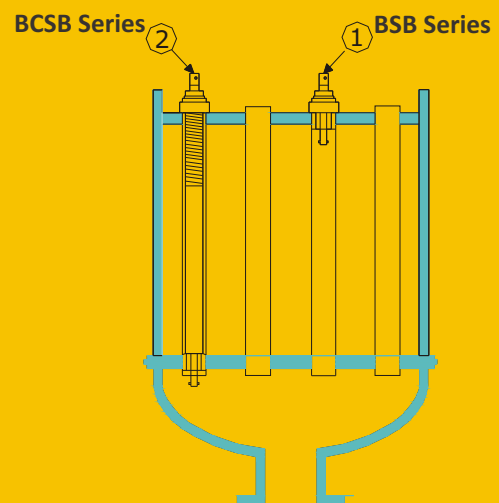
'5-Roll' Design is used primarily for rolling thin walled tubes used in sugar mill pan, juice heaters etc.
'5-Roll' gives a more concentric, uniform expansion vs a 3 roll expander in thin tubes & reduces spring back action
Time tested, durable design.
Use - For BOTTOM plate tube expansion in pan, juice heaters.

('BCSB' TUBE EXPANDER WITH 5-Plain rollers)

Sizes Available : 1.1/2" O.D. to 4½" O.D.
Models Available : BCSB-5 TO BCSB-24

NOTE:

We also manufacture other series of tube expander such as BAB, BABF3, B-1000, B-3000, Combination beading Type tube expander. We can also design & manufacture tube expander for tube OD diameter up to 250mm (10") or more.



CONDENSER TUBE EXPANDER

1/4" - 5"
Tube O.D.

'B900' SERIES



Sizes Available : 1/4" O.D. To 3/8" O.D.
Tube Internal diameter : 3.8mm (0.152") to 8.4mm (0.331")
Roller Length of Tube Expander: 3/4" (19.05mm) & 1.1/4" (31.75mm)

FEATURES:

This tool has been the work horse for several years for use on small diameter tubes.

Use - Oil coolers, Radiators, & other apparatus with small.

'B1300' SERIES



Sizes Available : 3/8"
Tube Internal diameter : 5.8mm (0.231") to 8.4mm (0.331")
Roller Length of Tube Expander: 3/4" (19.05mm) & 1.1/4" (31.75mm)

FEATURES:

Use - Oil coolers, Radiators, & other apparatus with small diameters tubes & thick tube sheets.

NOTE: All 'B1300' series expanders come with 1/4" square mandrel drives. Round mandrel drives are optional.

'B800' SERIES



Sizes Available : 1/2" O.D. to 1.1/2" O.D.
Tube Internal diameter : 8.4mm (0.334") to 36.3mm (1.43")
Roller Length of Tube Expander: 1.1/2" (38.1mm) & 2.1/4" (57.1mm)

FEATURES:

Use -This is the most popular expander for use on heat exchangers and condensers with tubes of 1/2"- 1.1/2" O.D. TUBE SHEET

ADJUSTABLE RANGE:

FOR 1.1/2" ROLLER LENGTH: 1/2" to 1.1/2"

FOR 2.1/4" ROLLER LENGTH: 1.1/4" to 2.1/4"

'B1200' SERIES LONG REACH



Sizes Available : 1/2" O.D. to 1.1/2" O.D.
Tube Internal diameter : 8.4mm (0.334") to 36.3mm (1.43")
Roller Length of Tube Expander: 1.1/2" (38.1mm) & 2.1/4" (57.1mm)

FEATURES:

Use -This is recommended for heat exchanger & condenser with tubes of 5/8"- 1.1/2" O.D. & thick tube sheets.

TUBE SHEET ADJUSTABLE RANGE:

FOR 1.1/2" ROLLER LENGTH: 1.1/2" to 12"

FOR 2.1/4" ROLLER LENGTH: 2.1/4" to 12.3/4"

'B8012' SERIES



Sizes Available : 1.3/4" O.D. to 8" O.D.
Tube Internal diameter : 36.1mm (1.420") to 190mm (7.48")
Roller Length of Tube Expander: 2.1/4" (57.1mm)

FEATURES:

Use -This is recommended to expand tubes in air heaters boilers , & refinery still tubes. Can be used to expand thick tube sheets (Upto 8")

TUBE SHEET ADJUSTABLE RANGE:

FOR 2.1/4" ROLLER LENGTH: 1/2" to 8"

VERNAN TUBE EXPANDER



BS-SERIES



BA-SERIES

Sizes Available : 1/2" - 2" O.D.
Tube Internal diameter : 8.22mm (0.324") to 50.8mm (2")

FEATURES:

Use -This is recommended to expand Stainless Steel thick tubes in heat exchanger having tube sheet up to 2.1/2"(63.5mm)

TUBE SHEET ADJUSTABLE RANGE:

FOR 2.1/4" ROLLER LENGTH: 1/2" to 8"

TUBE ROLLING CONTROL

HYDRAULIC TUBE EXPANSION SYSTEM

Features:

1. Drive communicates with the pump via 9v DC remote control. This ensures safety & Eliminates the need of electrical
2. Compatibility- Same power pack for all 4 drives to expand 5/8" OD to 4" OD tube.
3. Very high Torque developed- can expand large diameter, thick wall tubes in thick tube sheets easily.
4. Boiler erections get completed in record time.
5. Can be use for long working hours because drive is unaffected by heat.
6. Dual drive power pack is available to connect 2 drives to single power pack to cut down tube expansion time by further 50%.
7. Microprocessor controls on the pump automate the expansion cycle. Trip, pause & reverse times For the drive are adjustable. No need for repeated manual STOP/ START of the drive during Expansion cycle- Complete automatic.

The hydraulic pump supplied with hydraulic drive incorporates the latest state of the technology resulting in a subcompact pump developing 100 bar pressure. The system is mounted on four wheels for on site manoeuvrability. Expansion of tubes is regulated by adjusting pressure setting pump. Once required amount of wall thinning is achieved the drive trips automatically.



HYDRAULIC PUMP BHEP-500

	Hydraulic Pump Model		
	BHEP-300	BHEP-500	BHEP-1000
Oil tank capacity (Litres)	30	80	138
Hydraulic Oil	SAE VG 68	SAE VG 68	SAE VG 68
Net Weight (Kgs)	80	100	220
Maximum Working Pressure (bar)	100	100	100
Electrical Motors	3 hp., Single phase	5 hp., Three phase	10hp., Three phase
Voltage	230v / 110v	415V	415V
Overall Dimensions (mm)	610 x 270 x 985	820 x 470 x985	1775 x 550 x 1200
Standard Hose Size (Length)	½"(10 mtrs.)	½"(10 mtrs.)	½"(10 mtrs.)

HYDRAULIC DRIVES



Tube Expansion Range				DRIVE		Drive No Load Speed (RPM)	Drive Weight Kgs.
Steel Tube O.D.		Copper Tube I.D.		Model No.	Square Socket Inch	With BHEP-300/500/1000	
Mm	Inch	Mm	Inch				
15-25	5/8-1	25-38	1-1.1/2	BHED-3	3/8	620/954/800	9.6
19-38	3/4-1.1/2	32-64	1.1/4-2.5	BHED-4	3/8 & 1/2	350/480/400	9.7
38-76	1.1/2-3	50-102	2-4	BHED-5	1/2 & 3/4	62/84/70	11.0
50-102	2-4	-	-	BHED-6	3/4 & 1	40/62/54	11.5

NOTE: Above expansion system comes along with pair of hydraulic hoses, supply cables, remote control, & drive sockets of ½", 3/4" or 1" square.

Dual drive power pack is available to connect 2 drives to single power pack to cut down tube expansion time. By further 50%.

TUBE INSTALLATION TOOLS

SERRATING / GROOVING TOOL 'ST' SERIES



Tool Bit

1/8" x 3/8" x 1/8"
or
1/8" x 1/4" x 1/8"



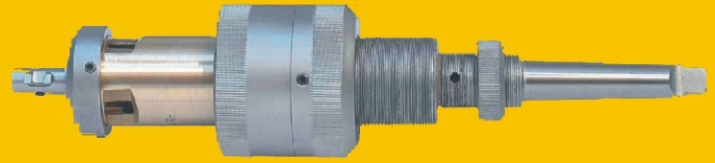
FOR GROOVING IN TUBE SHEETS

Sizes Available : 3/8" O.D. to 2.1/2" O.D.

FEATURES:

- High production tool.
- Ideal for use where 1 tool is needed per bore.
- One piece cryogenically treated tool bit ensures maximum life.
- Its suited for CNC application on account of 1 piece mandrel construction & short design.
- Note: Grooving tools are available for MM bore sizes also, Please enquire.

SERRATING / GROOVING TOOL 'NW' SERIES



Sizes Available : 3/8" O.D. To 2.1/2" O.D.

FEATURES:

- Simple to change cutter for different groove shapes.
- Changing of pilot nose & cutter allows one tool to cover a range of hole diameters.
- Location & depth of cut easy to adjust.
- Only light pressure required to cut precision grooves.
- Ready to fit CNC drill machines, lathe and boring machines.
- The life of the cutter extendable by re-shaping.

TUBE END FACER- 'BTEF' SERIES



Sizes Available : 3/8" O.D. To 4" O.D.

FEATURES:

- Tool bits are coated with Titanium Nitride to give 3 times the life of conventional tool bits.
- Ideal for quick facing of projecting tube ends in heat exchanger, condensers & boilers.
- One size of tool is suitable for use on multiple tube thickness by interchanging pilot. (TEF-375 is the exception with the tool suitable for one tube ID only.)
- Each tool is supplied with a set of multiple pilots to cover tube thickness.
- Tube end facers for MM sizes of tubes also available. Please Enquire.

TUBE END FACER- 'BFC' SERIES / WELD REMOVAL TOOL



Sizes Available : 3/8" O.D. To 4" O.D.

FEATURES:

- Tool uses 3 cutting blades which can be configured for tube end Facing or weld removal as step in the removal of welded tubes from the tube sheet.
- Tool fitted with MT shank for use with standard air or electric drills.
- Cutting blades are titanium Nitride coated to give 3 times the life of conventional cutting blades.
- Ideally suited for work on larger diameter boiler tubes .
- Tools available for MM sizes of tubes also. Please enquire

TUBE SHEET HOLE REAMER



Sizes Available : 3/8" O.D. To 4" O.D.

FEATURES:

- Ideal for heat exchanger and condenser tube sheet reaming.
- High speed steel, cryogenically treated & coated with Titanium, Nitride for long life.
- Reamers are available in MM sizes also.
- For larger diameters, please enquire.

OUR OTHER TUBE INSTALLATION TOOLS ARE:

- SERRATING / GROOVING TOOL 'SGT' SERIES
- TUBE END FACER- 'BFB' SERIES
- FLARING TOOL
- BEADING TOOL
- BELLING TOOL
- TUBE SHEET HOLE RADIUS CUTTER
- TUBE GUIDE

TUBE REMOVAL TOOLS

PUSH TYPE INTERNAL TUBE CUTTER- B ATP SERIES



Sizes Available : 5/8" O.D. To 1.1/2" O.D.

FEATURES:

- BHARTIYA "Push Type" internal tube cutter quickly cuts through the walls of ferrous tubes in condensers and Heat exchanger as step in their Removal from the tube sheet.
- This sturdy "Push Type" internal tube cutters can be used with a portable Electric or Air Drill Motor.
- "Push Type" cutter is simple to operate. Merely insert it into the tube. Apply power press inward and the tube can be cut in few seconds. Releasing of inward pressure automatically retracts the Cutter Bit. This cutter is equipped with an adjustable collar suitable for reaching into tubes at various depths.
- The replaceable cutting bit can be interchanged in a few seconds. Standard adjustable reach is 4" (101.6mm) and they are available In optional

MANUAL TUBE PULLER



Sizes Available : 1/4" O.D. To 1" O.D.

FEATURES:

- Simple Design: Only two major parts reduce inventory
- No power needed: Manual insertion and removal of tube with a hand wrench. Ideal for field service application.
- Ease of use: Hex at back of spear allows tightening without disassembly of thrust mechanism.
- Range of Sizes: A wide range of sizes allows use on popular tube size. Clarity of marking: Both spear & thrust collar are clarify Marked for last relating tool to job
- Larger sizes can be made available on request.

TUBE DRIFT/KNOCK OUT TOOL



Sizes Available : 3/8" O.D. To 4" O.D.

FEATURES:

- The drifts are available for mm tube sizes also. Please enquire
- It is used with pneumatic chipping hammer to knock out Tubes/ tube stubs form tube sheet
- Available in 01 & 06 shanks as standard. 15 (Jumbo) shank Available on request.
- Standard reach is 6" Longer reaches are available

COLLAPSING TOOL



Sizes Available : 3/8" O.D. To 2.1/2" O.D.

FEATURES:

- It is used to collapse tube and drive out collapsed tube from tube sheet with a chipping hammer.
- It is used with pneumatic chipping hammer to knock out Tubes/ tube stubs form tube sheet
- Available in 01 & 06 shanks as standard.
- Collapsing tools are available for mm tube size and larg tube Sizes. Please enquire.

OUR OTHER TUBE REMOVAL TOOLS ARE:

INTERNAL TUBE CUTTER-BPR-68 | ONE REVOLUTION INTERNAL CUTTER- BOTC SEROSE | TUBE PLUGS | 'PINE JENNY' STYEL TUBE PULLING ACCESSORIES

PIPE FACING & BEVELLING MACHINE

TUBE / PIPE BEVELLING MACHINES



PIPE FACING & BEVELLING MACHINE MODELS

	BBM-1625		BBM-3000		BBM-4500		BBM-8000	
	The BBM-1625 is light weight and powerful machine for facing, beveling, and weld preparation. It is compact, easy to handle and quick to setup. It is used for jobs in restricted access areas. Used in shutdown environments on condensers and heat exchangers.		The BBM-3000 the most popular and powerful machine. Used during maintenance and new boiler manufacturing. Quick interchangeability of locking jaws to suit wide range of dia meters. Modular and ergonomic design.		The BBM-4500 is a heavy duty machine designed to bevel, face and prepare weld edges for heavy wall thickness tubes.		The BBM-8000 is a heavy duty machine suitable for use on a wide range of tube Id's. Designed to bevel, face and produce weld preps on any thickness pipe or tube. Modular and ergonomic design with high torque to suit in toughest working Condition.	
DRIVE	PNEUMATIC	ELECTRIC	PNEUMATIC	ELECTRIC	PNEUMATIC	ELECTRIC	PNEUMATIC	ELECTRIC
LOCKING RANGE (mm)	20-42	20-42	28-76	28-76	39-104	39-104	51-203	51-203
IDEAL SPEED (RPM)	400	250	110	140	60	60	40	40
TORQUE (Nm)	27.5	45.0	84	138	220	240	220	240
FEEDING STROKE (mm)	23	23	40	40	40	40	40	40
PNEUMATIC POWER (HP)	0.60	----	0.83	----	1.3	----	1.3	----
AIR CONSUMPTION (cfm)	16	----	42	----	40	----	40	----
AIR PRESSURE (psi)	90	----	90	----	90	----	90	----
ELECTRIC POWER (watts)	----	650	----	595	----	1800	----	1800
WEIGHT (kg)	5.5	5.5	9.5	11.0	21.0	23.0	26.5	30.0

NARROW WIDTH PIPE BEVELING MACHINE

MODEL		DRIVE		
ELECTRIC	PNEUMATIC	WORKING RANGE	WALL THICKNESS	SPEED
BNFC-53	BNFC-53P	Dia 8 - 53	8mm Max.	56 RPM
BNFC-63	BNFC-63P	Dia 28 - 63	12mm Max.	52 RPM
BNFC-73	BNFC-73P	Dia 30 - 73	15mm Max.	48 RPM
BNFC-83	BNFC-83P	Dia 35 - 83	15mm Max.	44 RPM

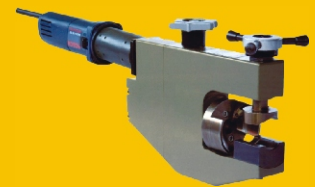


PLATE BEVELING MACHINE

This machine is handy and flexible unit for the preparation of welding beveling deburring of the material. It has low weight (Compared with our other similar machines) which enables to use at almost every work operation is easy and safe. The machine is suitable for milling steel, VA, Cast Iron, non-ferrous heavy metal with one hand operation. Smooth and flat eveling face, layer of oxide, facilitate for welding. It meet the need K, V, X & Y types of welding joint



TECHNICAL PARAMETERS:

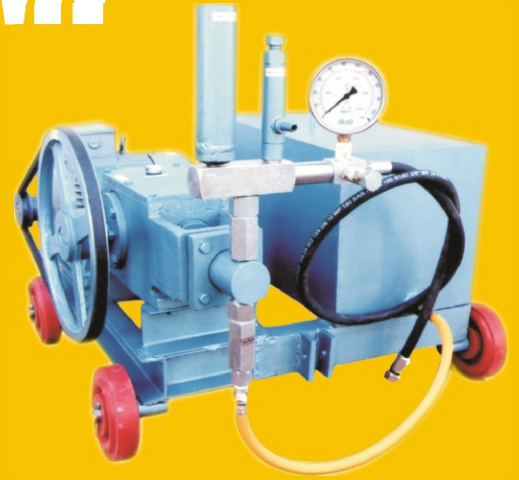
Land Width: 15mm Max. Progressively adjustable. Bevel Angle: 30- 60 degree progressively adjustable
 Weight: 18 Kg. Motor: 3 Phase, 400/440 Volts, 1.1KW, 2800 RPM, 50-60 Hz
 Model: PB M-15



HYDRO TEST PUMP

BHARTIYA MAKE Motorised Hydraulic Test Pumps are reciprocating type single plunger pump. The crank case is of sturdy in design, completely sealed and made out from graded Cast Iron. Heavy duty Bearings are used providing support to the harden alloy steel and ground crank shaft at both ends. The lubrication of power end parts and bearings are done by splash lubrication system from reservoir oil in the crank case.

SS harden and ground plunger offers corrosion and abrasion resistance and gives longer life. Heavy duty MS Cylinder and Distributor body with Gun Metal working parts is specially design for high pressure working. The SS Check / Non Return Valves and Pressure Relief valve with brass pressure release cock are used for trouble free operation. The shaft sealing is made by graphite asbestos gland packing and tightened by Gun Metal Gland Nut. The pump is supplied with std. accessories like Pressure Gauge, SS Pressure Relief Vale, MS Pulsation Dampener, 1.5 meters pressure Hose pipe with end connection, MS Fabricated Common Base Frame, Pump & Motor Pulley, V- Belt with or without Electric Motor. The optional accessories are Suction Tank, Suction Strainer, Suction and Discharge Hose, Flanges, Skid, Trolley with swivelling castor wheels etc. on special request.



Our Model No: BHT-70M , BHT-140M (Max. Pressure)

MODEL	MAX. PRASSURE		DISCH SIZE BSW	PLUNGER IN MM	OUT PUT CAPACITY LITERE / HOUR	ELECTRIC MOTOR RECOMMENDED FOR V-BELT DRIVE Kw/HP/RPM
	PSI	Kg/Cm2				
MTH-10	1000	70	½"	20mm	150 LPH	1.5KW / 2.0 HP / 1450RPM
MTH-20	2000	140	½"	20mm	150 LPH	2.2KW / 3.0 HP / 1450RPM
MTH-30	3000	211	½"	15mm	110 LPH	3.7KW / 5.0 HP / 1450RPM
MTH-50	5000	350	½"	15mm	110 LPH	0.75KW / 1.0 HP / 1450RPM
MTH-70	7000	500	½"	12mm	90 LPH	0.75KW / 1.0 HP / 1450RPM
MTH-100	10000	700	½"	12mm	70 LPH	0.75KW / 1.0 HP / 1450RPM

We also manufacture hydrotest pump up to 1500 bar | We also deal in manually operated hydrotest pump | Kindly send your specific inquiry to quote price.

OUR OTHER PRODUCT RANGES

BOLTING TOOLS

Impact Sockets | Slugging Wrenches | Torque Wrenches | Torque Multiplier | Hydraulic Torque Wrench
Hydraulic Bolt Tensioner | Tool Kits | Hydraulic Nut Splitter | Flange Spreader

GRINDING TOOLS

Flexible Shaft Grinders | Flexible Shafts | Tool Holders

TAPPING TOOLS

Pneumatic Tapping Machines | Quick Change Tap Holders



TUBE TOOLS



BOLTING TOOLS



HARISON
GRINDING TOOLS



HARISON
CONSTRUCTION EQUIPMENTS

BHARTIYA INDUSTRIES

Head Office & Manufacturing Plant 1:

Address: Plot No. 268, Digvijay Industrial Estate, Upvan,
Pokhran Road No. 1, Thane - 400 606, Maharashtra, India.

Tel.No.: +91-22-2585 4509 / 6505 6400 / 2588 3527. Fax No: +91-22-25883527

E Mail: bharatflex@yahoo.com; sales@tubecleaner.co.in

Plant 2:

Address: A48, Osiyaji Mata Compound, Kalher Village,
Taluka - Bhiwandi, Dist. Thane, Maharashtra, INDIA-421 302.

**Website: www.bharatiyaindustries.com | www.tubecleaner.co.in
www.pipebevelingindia.com | www.tubeexpanderindia.com**

Authorised Dealer