

SUBZERO TUBE CLEANER



TUBE CLEANING TOOL

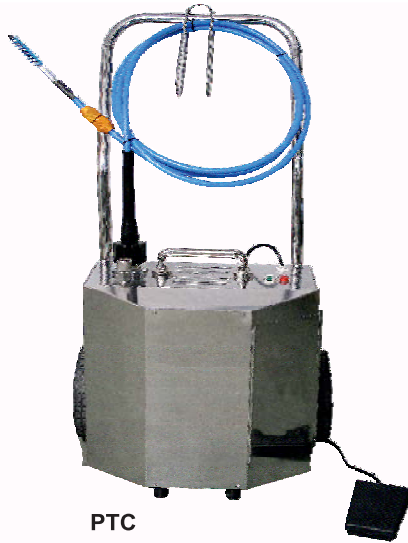


Subzero

The Tube Expander Company...

Electric Tube Cleaner

1/4" - 1.1/2" O.D.



PTC

Features

Operates on Single Phase Supply which is easily available. Water flows through the shaft. It softs the scale & flushes out from the tube. Tube cleaner is operates by foot. So operator concentrate on cleaning operation. Flexible shafts are easily connected & disconnected Moblie trolley for easy movement. Water flows through the shaft when operator press the foot pedal.

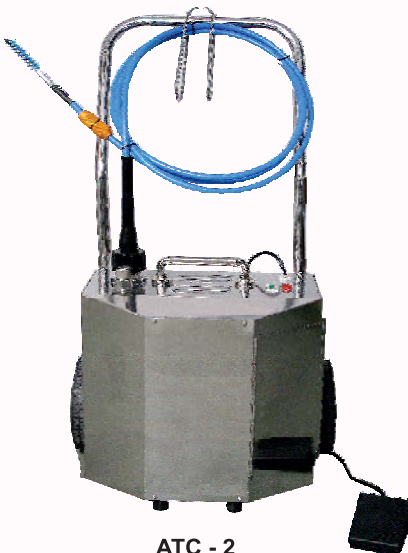


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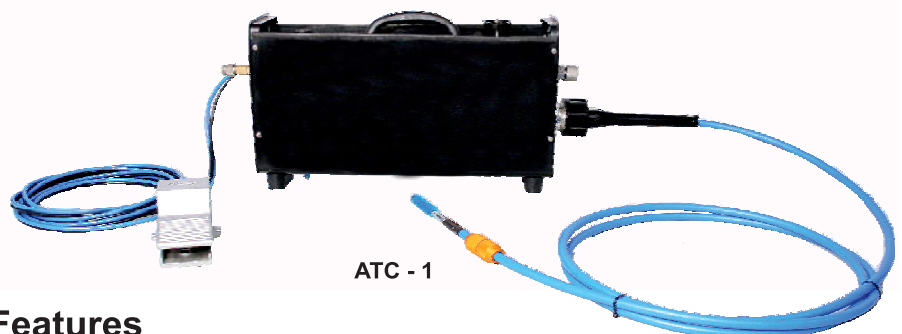
Tube O.D		Model No.	Motor Power		Motor Speed RPM	Weight (Kg.)
Inch	MM		HP	KW		
1/4" - 1"	6.35 - 25.40	PTC 1	1/2	0.40	890	28.0
1/4" - 1"	6.35 - 25.40	PTC 2	3/4	0.60	890	30.0
1" - 1.1/2"	25.40 - 38.10	PTC 3	1	0.75	1780	32.0
1" - 1.1/2"	25.40 - 38.100	PTC 4	2	1.50	1780	38.0
1/4" - 1"	6.35 - 25.40	PORTO	1/2	0.40	1780	16.0

Pneumatic Tube Cleaner

1/4" - 1.1/2" O.D.



ATC - 2



ATC - 1

Features

Shock Resistance - Specially for Destillery Plant & where Electrical Equipments are hazardous. Machine Speed/Torque can be Controlled as per the application. Water flows through the shaft. It softs the scale & flushes out from the tube. Tube cleaner is operates by foot. So operator concentrate on cleaning operation. Flexible shafts are easily connected & disconnected Moblie trolley for easy movement. Water flows through the shaft when operator press the foot pedal.

Tube O.D		Model No.	Motor Power		Motor Speed RPM	Weight (Kg.)
Inch	MM		HP	KW		
1/4" - 1"	6.35 - 25.40	ATC 1	1.7	1.1	300-3000	12.0
1/4" - 11/2"	6.35 - 38.10	ATC 2	4	3.0	300-3000	28.0

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Flexible Shaft (Wet application, Condenser Use)

1/4"- 1" I.D.



Features

Stainless Steel tempered inner core increases the life & flexibility of the shaft
It is resistance to corrosion.

Tube I.D. Range		Shaft Model No.	Shaft Length		Shaft Core O.D.		Shaft Casing O.D.		Tool end Thread
Inch	MM		Mtrs	Feets	Inch	mm	Inch	mm	
1/4" - 3/8"	6.35 - 9.52	PFS-250-40	4.00	13	1/8"	3.20	1/4"	6.35	8-32 (F)
		PFS-250-79	7.90	26					
7/16" - 1/2"	11.10 - 12.70	PFS-375-40	4.00	13	1/4"	6.35	3/8"	9.52	1/4" UNF (F)
		PFS-375-55	5.50	18					
		PFS-375-79	7.90	26					
		PFS-375-110	11.00	36					
		PFS-375-140	14.00	46					
9/16" - 1"	14.30 - 25.40	PFS-500-40	4.00	13	5/16"	7.90	1/2"	12.70	1/4" UNF (F)
		PFS-500-55	5.50	18					
		PFS-500-79	7.90	26					
		PFS-500-110	11.00	36					
		PFS-500-140	14.00	46					
		PFS-500-184	18.40	60					
11/16" - 1"	17.50 - 25.40	PFS-500-232	23.20	75	3/8"	9.50	9/16"	14.30	1/4" UNF (F)
		PFS-560-40	4.00	13					
		PFS-560-55	5.50	18					
		PFS-560-79	7.90	26					
		PFS-560-110	11.00	36					
		PFS-560-140	14.00	46					
		PFS-560-184	18.60	61					
1"	25.40	PFS-560-232	23.20	75	1/2"	12.70	3/4"	19.05	1/2" BSW (F)
		PFS-750-49	4.90	16					
		PFS-750-79	7.90	26					
		PFS-750-110	11.00	36					
		PFS-750-155	15.50	51					

Flexible Shaft (Dry application, Condenser Use)

1" I.D.



Tube I.D. Range		Shaft Model No.	Shaft Length		Shaft Core O.D.		Shaft Casing O.D.		Tool end Thread
Inch	MM		Mtrs	Feets	Inch	mm	Inch	mm	
1"	25.40	PFS-875-49	4.90	16	1/2"	12.7	7/8"	22.2	1/2" BSW (F)
		PFS-875-79	7.90	26					
		PFS-875-110	11.00	36					
		PFS-875-155	11.50	51					

TUBE CLEANING TOOL

Brushes

1/4" - 4" I.D.



Nylon Brush:- Used to remove the soft scale deposits & polishing purpose in ferrous & non-ferrous tubes.

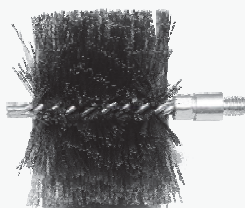
Brass Brush:- Used to remove the soft & light scale deposits from non-ferrous tubes.

Stainless Steel Brush:- Used to remove the soft & light scale deposits & from ferrous tubes.

Brush O.D		Nylon Brush Model No.	Stainless Steel Brush Model No.	Brass Brush Model No.	Threading	Coupling
Inch	MM					
1/4"	6.35	N - 250	SS - 250	B - 250	8-32 (F)	(8-32M X 8-32M)
5/16"	7.90	N - 312	SS - 312	B - 312	8-32 (F)	(8-32M X 8-32M)
3/8"	9.50	N - 375	SS - 375	B - 375	12-24 (F)	(8-32M X 12-24M)
7/16"	11.10	N - 437	SS - 437	B - 437	1/4" UNF	N.A.
1/2"	12.70	N - 500	SS - 500	B - 500	1/4" UNF	N.A.
9/16"	14.30	N - 562	SS - 562	B - 562	1/4" UNF	N.A.
5/8"	15.90	N - 625	SS - 625	B - 625	1/4" UNF	N.A.
11/16"	17.50	N - 687	SS - 687	B - 687	1/4" UNF	N.A.
3/4"	19.05	N - 750	SS - 750	B - 750	1/4" UNF	N.A.
13/16"	20.60	N - 812	SS - 812	B - 812	1/4" UNF	N.A.
7/8"	22.20	N - 875	SS - 875	B - 875	1/4" UNF	N.A.
15/16"	23.80	N - 937	SS - 937	B - 937	1/4" UNF	N.A.
1"	25.40	N - 1000	SS - 1000	B - 1000	1/4" UNF	N.A.
1.1/4"	31.70	N - 1250	SS - 1250	B - 1250	1/2" BSW	N.A.
1.1/2"	38.10	N - 1500	SS - 1500	B - 1500	1/2" BSW	N.A.
1.3/4"	44.50	N - 1750	SS - 1750	B - 1750	1/2" BSW	N.A.
2"	50.80	N - 2000	SS - 2000	B - 2000	1/2" BSW	N.A.
2.1/4"	57.10	N - 2250	SS - 2250	B - 2250	1/2" BSW	N.A.
2.1/2"	63.50	N - 2500	SS - 2500	B - 2500	1/2" BSW	N.A.
2.3/4"	70.00	N - 2750	SS - 2750	B - 2750	1/2" BSW	N.A.
3"	76.20	N - 3000	SS - 3000	B - 3000	1/2" BSW	N.A.
3.1/4"	82.60	N - 3250	SS - 3250	B - 3250	1/2" BSW	N.A.
3.1/2"	89.00	N - 3500	SS - 3500	B - 3500	1/2" BSW	N.A.
3.3/4"	95.20	N - 3750	SS - 3750	B - 3750	1/2" BSW	N.A.
4	101.60	N - 4000	SS - 4000	B - 4000	1/2" BSW	N.A.

Brushes

5" - 14" I.D.



Brush O.D		Carbon Steel Brush Model NO.	Stainless Steel Brush Model No.
Inch	MM		
5	127.00	CS - 5000	P - 5000
6	152.40	CS - 6000	P - 6000
7	178.00	CS - 7000	P - 7000
8	203.20	CS - 8000	P - 8000
9	228.60	CS - 9000	P - 9000
10	254.00	CS - 10000	P - 10000
11	279.40	CS - 11000	P - 11000
12	305.00	CS - 12000	P - 12000
13	330.20	CS - 13000	P - 13000
14	355.60	CS - 14000	P - 14000

TUBE CLEANING TOOL

Cleaning Accessories

Buffing Tools :- It is used for final Polishing or removal of light & soft deposits from ferrous & non-ferrous Tubes that have been previously cleaned.



Buffing Tool



Buffing Tool With Drill Top



Carbaide Drill

Tube I.D.		Buffing tool	Buffing tool With Drill Tip	Replacement Blades
Inch	mm			
5/16" - 3/8"	7.90 - 9.52	PBT - 1	PBT - 1 - T	PBB - 1
3/8" - 1/2"	9.52 - 12.7	PBT - 2	PBT - 2 - T	PBB - 1
1/2" - 9/16"	12.7 - 14.3	PBT - 3	PBT - 3 - T	PBB - 2
5/8" - 1"	15.8 - 25.4	PBT - 4	PBT - 4 - T	PBB - 3
1" - 3"	25.4 - 76.2	PBT - 7	PBT - 7 - T	PBB - 5

Carbide Drill:- It is used for cleaning tubes choked solidly with hard deposits

Tube I.D.		Carbide Drill Model No.
Inch	mm	
1/4"	6.35	CB - 250
3/8"	9.52	CB - 375
7/16"	11.1	CB - 430
1/2"	12.7	CB - 500
9/16"	14.3	CB - 560
5/8"	15.9	CB - 625
11/16"	17.5	CB - 680
3/4"	19.05	CB - 750
7/8"	22.2	CB - 875
1"	25.4	CB - 1000

CIRCULAR BRUSH TOOLS FOR STRAIGHT TUBES:- These tools consist of 4 stainless steel circular brushes that are mounted on a shaft and connected to a Universal Joint. These tools are used to clean soft to medium scales. Replacement circular brushes can be ordered when wear starts



Straight Tube I.D		Circular Brush Tool Model	Brush O.D		Spare Brush Model(4 needed)	Spare Universal joint Model
Inch	mm		Inch	mm		
1.1/8" - 1.5/16"	28.6 - 33.3	CBTS - 1125	1"	25.4	CBSB - 1125	UCT - 1063
1.3/8" - 1.9/16"	35.0 - 39.7	CBTS - 1375	1.1/4"	31.7	CBSB - 1375	UCT - 1063
1.5/8" - 1.13/16"	41.6 - 47.1	CBTS - 1625	1.1/2"	38.1	CBSB - 1625	UCT - 1063
1.7/8" - 2.1/16"	47.6 - 52.6	CBTS - 1875	1.3/4"	44.5	CBSB - 1875	UCT - 1250
2.1/8" - 2.5/16"	54.0 - 58.7	CBTS - 2125	2"	50.8	CBSB - 2125	UCT - 1250
2.3/8" - 2.9/16"	60.3 - 65.1	CBTS - 2375	2.1/4"	57.1	CBSB - 2375	UCT - 1250
2.5/8" - 2.13/16"	66.7 - 71.6	CBTS - 2625	2.1/2"	63.5	CBSB - 2625	UCT - 1250
2.7/8" - 3.1/16"	73.0 - 77.8	CBTS - 2875	2.3/4"	70.5	CBSB - 2875	UCT - 1250
3.1/8" - 3.5/16"	79.4 - 84.2	CBTS - 3125	3"	76.2	CBSB - 3125	UCT - 1250

CIRCULAR BRUSH TOOLS FOR CURVED TUBES:- These tools consist of 2 stainless steel circular brushes that are mounted onto a Double Universal Joint for maximum flexibility. These tools are used to clean soft to medium scales. Replacement circular brushes can be ordered when wear starts.



Curved Tube I.D		Circular Brush Tool Model	Brush O.D		Spare Brush Model(4 needed)	Spare Universal joint Model
Inch	mm		Inch	mm		
1.1/4" - 1.7/16"	31.7 - 35.6	CBTC - 1125	1"	25.4	CBSB - 1125	UCT - 1063
1.1/2" - 1.11/16"	38.1 - 42.9	CBTC - 1500	1.1/4"	31.7	CBSB - 1375	UCT - 1063
1.3/4" - 1.15/16"	44.5 - 49.2	CBTC - 1750	1.1/2"	38.1	CBSB - 1625	UCT - 1063
2" - 2.3/16"	50.8 - 55.6	CBTC - 2000	1.3/4"	44.5	CBSB - 1875	UCT - 1250
2.1/4" - 2.7/16"	57.1 - 61.9	CBTC - 2250	2"	50.8	CBSB - 2125	UCT - 1250
2.1/2" - 2.11/16"	63.5 - 68.3	CBTC - 2500	2.1/4"	57.1	CBSB - 2375	UCT - 1250
2.3/4" - 2.15/16"	70.0 - 74.6	CBTC - 2750	2.1/2"	63.5	CBSB - 2625	UCT - 1250
3" - 3.3/16"	76.2 - 81.0	CBTC - 3000	2.3/4"	70.1	CBSB - 2875	UCT - 1250
3.1/4" - 3.9/16"	82.6 - 90.6	CBTC - 3250	3"	76.2	CBSB - 3125	UCT - 1250

TUBE CLEANING TOOL



Subzero

The Tube Expander Company...

Sugar Mill Cleaner

Sugar Mill Cleaner



Features:-

Self contained unit with trolley.
Heavy Duty 3 Phase Supply Motor with 2800 R.P.M.
Provided With Branded push button starter switch having Overload Relay
Flexible shafts are easily connected & disconnected

Model No.	Motor H.P	Speed RPM	Electric Supply
TC - 30	3.0	2800	3 PH 440 V 50 Hz
TC - 50	5.0		
TC - 75	7.0		

Sugar Mill Flexible Shaft

Sugar Mill Flexible Shaft

Features:-

Heavy Duty Flexible shaft for sugar mill (Dry Application)
Inner core made up of multi layer spring Steel wires in opposite direction
Tempered Inner core
Galvanized strip outer casing with anti - friction lining.
Ball Bearing hand Piece



Inner Core mm (inch)		12 - 13 (1/2")	15 - 16 (5/8")	19 - 20 (3/4")
Outer Casing mm (Inch)		25 - 26 (1")	31 - 32 (1.1/4")	34 - 35 (1.3/8")
Length		Model No.	Model No.	Model No.
Mtrs	Feet			
7.50	25.00	IFS - 105 - 25	IFS - 106 - 25	IFS - 107 - 25
9.00	30.00	IFS - 105 - 30	IFS - 106 - 30	IFS - 107 - 30
10.00	33.00	IFS - 105 - 33	IFS - 106 - 33	IFS - 107 - 33
12.00	40.00	IFS - 105 - 40	IFS - 106 - 40	IFS - 107 - 40
15.00	50.00	IFS - 105 - 50	IFS - 106 - 50	IFS - 107 - 50
18.00	60.00	IFS - 105 - 60	IFS - 106 - 60	IFS - 107 - 60
20.00	65.00	IFS - 105 - 65	IFS - 106 - 65	IFS - 107 - 65

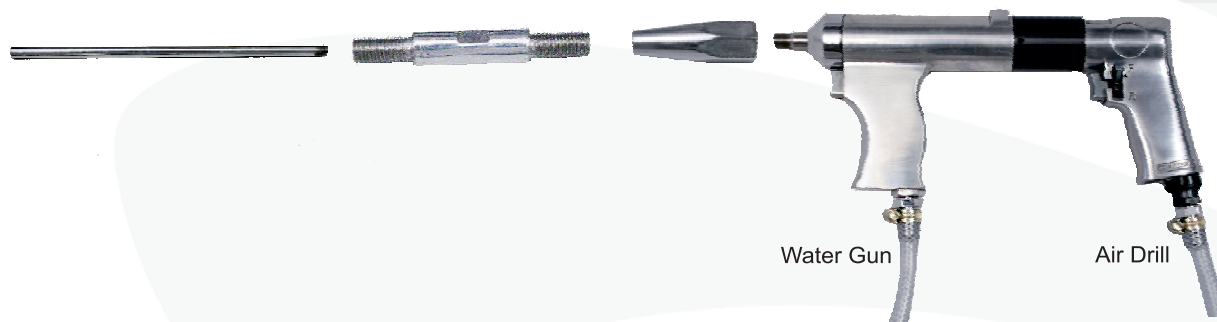
TUBE CLEANING TOOL



Subzero

The Tube Expander Company...

Portable Pneumatic Tube Cleaner



Features:-

It's Powerful Portable Cleaner for Totally Chocked tubes

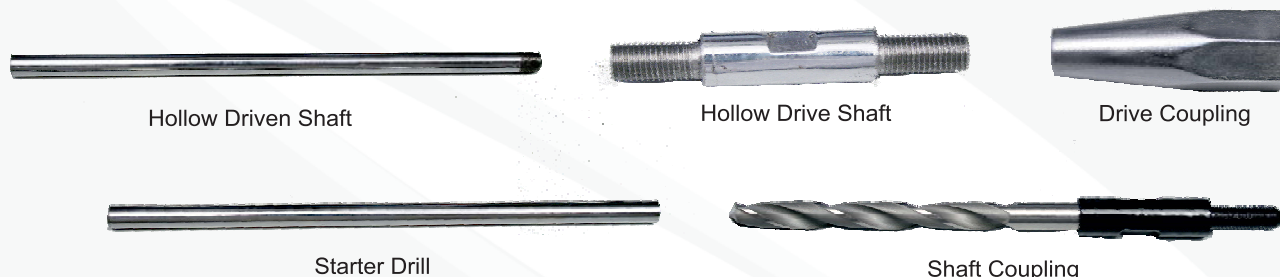
Water flows through the shaft. It softs the scale & flushes out from the tube.

Water flows through the shaft when operator press the water gun trigger.

Hollow drive Shaft & Hollow driven Shaft can be coupled together with Shaft Coupling to form the required length of the tube which is to be cleaned.

Tube I.D.		Model No.	Motor Power		Free Speed RPM	Air Supply		Water Supply		Weight KG
Inch	mm		HP	KW		Min	Max	Min	Max	
3/16" - 2"	4.8 - 51.0	PPTC-1	1	0.746	700	90PSI @20CFM	90PSI @40CFM	30 PSI	100 PSI	3.2

Portable Pneumatic Tube Cleaner Accessories



Features:-

Drive Coupling :- It Couples Hollow Drive Shaft to Drive

Hollow Drive Shaft :- It Connect to Drive.

Hollow Driven Shaft :- It Connect to Hollow Drive Shaft as extension

Shaft Coupling :- It Couples Hollow Driven Shaft to Hollow Drive Shaft

Starter Drill :- It does pilot hole in totally choked tube

Tube I.D.		Drive Model	Hollow Drive Shaft Model No.	Hollow Driven Shaft Model No.	Drive Coupling Model No.	Shaft Coupling Model No.	Starter Drill Model No.
Inch	mm						
3/16" - 1/4"	4.8 - 6.4	PPTC-1	DS - 300	DN - 300	DC - 300	SC - 300	SD - 300
3/8"	9.5		DS - 312	DN - 312	DC - 312	SC - 312	SD - 312
7/16"	11.0		DS - 375	DN - 375	DC - 375	SC - 375	SD - 375
1/2" - 9/16"	12.7 - 14.3		DS - 437	DN - 437	DC - 437	SC - 437	SD - 437
5/8" - 11/16"	15.9 - 17.5		DS - 500	DN - 500	DC - 500	SC - 500	SD - 500
3/4" - 13/16"	19.1 - 20.6		DS - 562	DN - 562	DC - 562	SC - 562	SD - 562
7/8" - 1"	22.2 - 25.4		DS - 625	DN - 625	DC - 625	SC - 625	SD - 625
1.1/16" - 2"	27.0 - 51.0		DS - 750	DN - 750	DC - 750	SC - 750	SD - 750

TUBE CLEANING TOOL

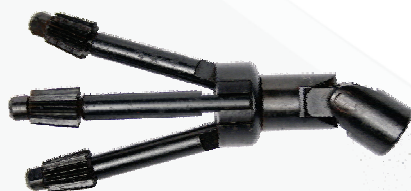
Sugar Mill Cutter Heads



" H " Type Cutter Head

This tool is suitable for 1.1/4" - 4" tube I.D.
These cutters are used to remove the hard deposits from the Curved or straight boiler, air heater, economiser etc. tubes

Tube I.D.		Model No.	Cutter Wheels Set(3)	Spare Spindle
Inch	mm			
1.1/4"	31.70	H - 10	HSRL - 1	HA - 1
1.3/8"	35.00	H - 11	HSRL - 1	HA - 1
1.1/2"	38.10	H - 12	HSRL - 1	HA - 1
1.5/8"	41.30	H - 13	HSRL - 2	HA - 2
1.3/4"	44.50	H - 14	HSRL - 2	HA - 2
1.7/8"	47.60	H - 15	HSRL - 2	HA - 2
2"	50.80	H - 16	HSRL - 2	HA - 2
2.1/8"	54.00	H - 17	HSRL - 2	HA - 2
2.1/4"	57.10	H - 18	HSRL - 3	HA - 3
2.1/2"	63.50	H - 20	HSRL - 3	HA - 3
2.3/4"	70.00	H - 22	HSRL - 4	HA - 3
3"	76.20	H - 24	HSRL - 4	HA - 3
3.1/4"	82.50	H - 26	HSRL - 5	HA - 3
3.1/2"	88.90	H - 28	HSRL - 5	HA - 3
3.3/4"	95.20	H - 30	HSRL - 6	HA - 4
4"	101.60	H - 32	HSRL - 6	HA - 4



" WA " Type Cutter Head

This tool is suitable for 1.1/2" - 4" tube I.D. These cutters are best to remove the hard deposits from the Curved or straight tubes. Pivoted arm of cutter swing out by centrifugal force & it cleans every part of tube wall.

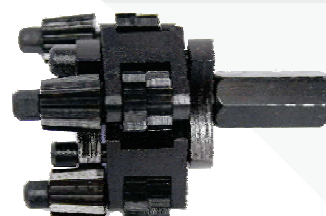
Tube I.D. Inch	Model No.	Cone Cutter Set (3)	Spare Arms	Universal Joint
1.1/2"	WA - 12	WAL - 1	WAA - 1	WAUJ - 1
1.3/4"	WA - 14	WAL - 1	WAA - 1	WAUJ - 1
2"	WA - 16	WAL - 1	WAA - 1	WAUJ - 1
2.1/4"	WA - 18	WAL - 2	WAA - 1	WAUJ - 2
2.1/2"	WA - 20	WAL - 2	WAA - 1	WAUJ - 2
2.3/4"	WA - 22	WAL - 2	WAA - 1	WAUJ - 2
3"	WA - 24	WAL - 3	WAA - 2	WAUJ - 2
3.1/2"	WA - 28	WAL - 3	WAA - 2	WAUJ - 2
4"	WA - 32	WAL - 4	WAA - 2	WAUJ - 2



" H Z" Type Cutter Head

This tool is suitable for 1.1/4" - 2" tube I.D. These spring loaded cutters are used to remove the hard deposits from the straight Evaporator, Juice heater, etc. tubes.

Tube I.D.		Model No.	Cutter Wheels Set(3)	Spare Spindle
Inch	mm			
1.1/4"	31.70	HZ - 10	HZSRL - 1	HZA - 1
1.5/16"	33.30	HZ - 10A	HZSRL - 1	HZA - 1
1.3/8"	35.00	HZ - 11	HZSRL - 1	HZA - 1
1.7/16"	36.50	HZ - 11A	HZSRL - 1	HZA - 2
1.1/2"	38.10	HZ - 12	HZSRL - 1	HZA - 2
1.9/16"	39.70	HZ - 12A	HZSRL - 1	HZA - 2
1.5/8"	41.30	HZ - 13	HZSRL - 1	HZA - 2
1.11/16"	42.90	HZ - 13A	HZSRL - 1	HZA - 2
1.3/4"	44.50	HZ - 14	HZSRL - 2	HZA - 3
1.13/16"	46.00	HZ - 14A	HZSRL - 2	HZA - 3
1.7/8"	47.60	HZ - 15	HZSRL - 2	HZA - 3
1.15/16"	49.20	HZ - 15A	HZSRL - 2	HZA - 3
2"	50.80	HZ - 16	HZSRL - 2	HZA - 3



" SA " Type Cutter Head

This tool is suitable for 2" - 4" tube I.D. These cutters are best to remove or straight tubes. Pivoted arm of cutter swing out by centrifugal force & it clean every part of tube wall.

Tube I.D. Inch	Model No.	Cones & Flat Cutter Set(9)	Spare Arms	Universal Joint
2"	SA - 16	SAFC - 1	SAA - 1	SAUJ - 1
2.1/4"	SA - 18	SAFC - 2	SAA - 2	SAUJ - 2
2.1/2"	SA - 20	SAFC - 2	SAA - 2	SAUJ - 2
2.3/4"	SA - 22	SAFC - 3	SAA - 2	SAUJ - 2
3"	SA - 24	SAFC - 3	SAA - 2	SAUJ - 2
3.1/2"	SA - 28	SAFC - 4	SAA - 2	SAUJ - 2
4"	SA - 32	SAFC - 5	SAA - 3	SAUJ - 2

TUBE CLEANING TOOL



Subzero
The Tube Expander Company...

Sugar Mill Wire Brushes



"TH" FOR SOOT REMOVAL FROM SMOKE TUBE, GENERAL CLEANING



"DS" FOR REMOVING LIGHT SCALE AND BURNISHING ALL TYPES OF TUBE



"WBA" HEAVY DUTY BRUSHES



"EXP" EXPANDING BRUSH FOR THIN SCALE, SOOT OR SOFT DEPOSIT



"MB" FOR GENERAL PURPOSE POLISHING AND DEBURING



"CB" SPARE BRUSH WHEELS FOR "MB" BRUSHES.



"RS" HEAVY DUTY BRUSHES FOR HEAVY SCALE REMOVAL.



"EXS" EXPANDING SCRAPERS FOR THIN SCALE, SOOT OR SOFT DEPOSITS.

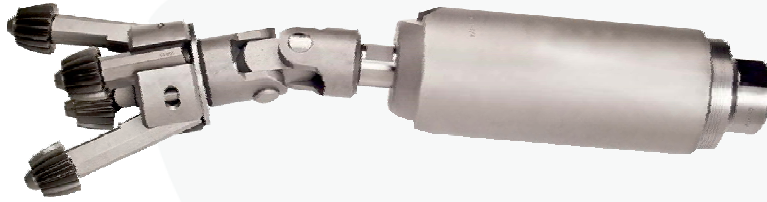
Tube I.D.		Turk Head Brush	Double Spiral Brush	WBA Brush	Expanding Brush	Multi Purpose Brush	Circular Wheel Brush	Cup Shape Brush	Expanding Scrapers
Inch	mm								
1.1/4"	31.70	TH - 10	DS - 10	WBA - 10	EXP - 10	MB - 10	CB - 10		EXS - 10
1.3/8"	35.00	TH - 11	DS - 11	WBA - 11	EXP - 11	MB - 11	CB - 11		EXS - 11
1.1/2"	38.10	TH - 12	DS - 12	WBA - 12	EXP - 12	MB - 12	CB - 12		EXS - 12
1.5/8"	41.30	TH - 13	DS - 13	WBA - 13	EXP - 13	MB - 13	CB - 13		EXS - 13
1.3/4"	44.50	TH - 14	DS - 14	WBA - 14	EXP - 14	MB - 14	CB - 14		EXS - 14
1.7/8"	47.60	TH - 15	DS - 15	WBA - 15	EXP - 15	MB - 15	CB - 15		EXS - 15
2"	50.80	TH - 16	DS - 16	WBA - 16	EXP - 16	MB - 16	CB - 16	RS - 16	EXS - 16
2.1/8"	54.00	TH - 17	DS - 17	WBA - 17	EXP - 17	MB - 17	CB - 17	RS - 17	EXS - 17
2.1/4"	57.10	TH - 18	DS - 18	WBA - 18	EXP - 18	MB - 18	CB - 18	RS - 18	EXS - 18
2.3/8"	60.30	TH - 19	DS - 19	WBA - 19	EXP - 19	MB - 19	CB - 19	RS - 19	EXS - 19
2.1/2"	63.50	TH - 20	DS - 20	WBA - 20	EXP - 20	MB - 20	CB - 20	RS - 20	EXS - 20
2.5/8"	66.70	TH - 21	DS - 21	WBA - 21	EXP - 21	MB - 21	CB - 21	RS - 21	EXS - 21
2.3/4"	70.00	TH - 22	DS - 22	WBA - 22	EXP - 22	MB - 22	CB - 22	RS - 22	EXS - 22
2.7/8"	73.00	TH - 23	DS - 23	WBA - 23	EXP - 23	MB - 23	CB - 23	RS - 23	EXS - 23
3"	76.20	TH - 24	DS - 24	WBA - 24	EXP - 24	MB - 24	CB - 24	RS - 24	EXS - 24
3.1/8"	79.40	TH - 25	DS - 25	WBA - 25	EXP - 25	MB - 25	CB - 25	RS - 25	EXS - 25
3.1/4"	82.50	TH - 26	DS - 26	WBA - 26	EXP - 26	MB - 26	CB - 26	RS - 26	EXS - 26
3.3/8"	85.70	TH - 27	DS - 27	WBA - 27	EXP - 27	MB - 27	CB - 27	RS - 27	EXS - 27
3.1/2"	88.90	TH - 28	DS - 28	WBA - 28	EXP - 28	MB - 28	CB - 28	RS - 28	EXS - 28
3.5/8"	92.10	TH - 29	DS - 29	WBA - 29	EXP - 29	MB - 29	CB - 29	RS - 29	EXS - 29
3.3/4"	95.20	TH - 30	DS - 30	WBA - 30	EXP - 30	MB - 30	CB - 30	RS - 30	EXS - 30
3.7/8"	98.40	TH - 31	DS - 31	WBA - 31	EXP - 31	MB - 31	CB - 31	RS - 31	EXS - 31
4"	101.60	TH - 32	DS - 32	WBA - 32	EXP - 32	MB - 32	CB - 32	RS - 32	EXS - 32

TUBE CLEANING TOOL



Subzero
The Tube Expander Company...

Air Driven Tube Cleaner



3000 Series ADTC



4000 Series ADTC



Midget Series ADTC

Features :-

- ADTC is very lightweight, works on air supply so it is safe & easy to operate.
- ADTC needs only one operator so operation cost is very low.
- In case of overload the ADTC has self-tripping mechanism.
- The self cooled ADTC system does not get heated up even at high speed.
- In ADTC the system is controlled by a single hand valve. also speed can be controlled by this valve.
- Standard model available from 19.0mm to 140.0mm I.D.Tubes.
- Quick connection to airline
- Air cooled, Air Driven Rotary Motors 3000-6000 RPM
- No Overheating, Long life
- Automatic cut-off as torque overloaded. Prevent damage of tube internal surface.
- Self cleaning heads. Air blasts cleans away loose scales versatile range of cleaning cutter heads.
- Trouble free operation with minimum maintenance.

4000 Series ADTC:-

Powerful short Design of air motor is ideal for negotiating short bend for cleaning of curved tubes. Precise Slip-tilt construction. So no need of special tools does assembly or dis-assembly of motor. Thrust plate motor acquires heavy air to operate all type of cleaning heads.

Midget Series ADTC:-

Powerful, short & compact design. Powerful unit for the small straight tube of condenser, head-exchanger, super heater, etc. operating at peak efficiency. May be used with universal joint for cleaning of curved tubes.

3000 Series ADTC :-

Thrust plate type motor specially designed for the straight tubes For heavy duty performance. Motor part slip-fit together so no need of special tools.

TUBE CLEANING TOOL

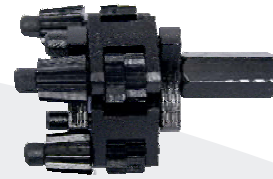
Air Driven Tube Cleaner Cutter Head & Brushes



HZ Cutter head

HZ Cutter head :-

This tool is suitable for 32.0mm to 54.0 mm I.D Tubes. These spring loaded cutter heads are used to remove the hard deposits from Evaporator, Juice Heater, Etc.



SA Cutter Head

SA Cutter Head :-

This tool is suitable for 45.0 mm to 150 mm I.D. Tubes. These cutter heads are best to remove the hard deposits from curved or straight tubes. Swing arm activated centrifugally, swing out to give cutter access to clean every part of the tube.



BT cutter Head

BT cutter Head :-

This tool is suitable for 22.0mm to 102.0mm tube I.D. tubes. These cutter heads are useful & powerful for the totally choked tubes.



SC Cutter Head

SC Cutter Head:-

This tool is suitable for 22.0mm to 102.0 mm tube I.D. tubes. This is the shorter version of SA cutter Head, used for cleaning of tubes with small bend radius.



VT Drill

VT Drill :-

A very rugged drill head for hard scale choked tubes.



SP Cutter

SP Cutter:-

This tool is commonly used for thin but hard scale.



B Type Brush

B Type Brush :-

Recommended for polishing tube wall, removing soft deposits or final finishing after use of cutter, drill.



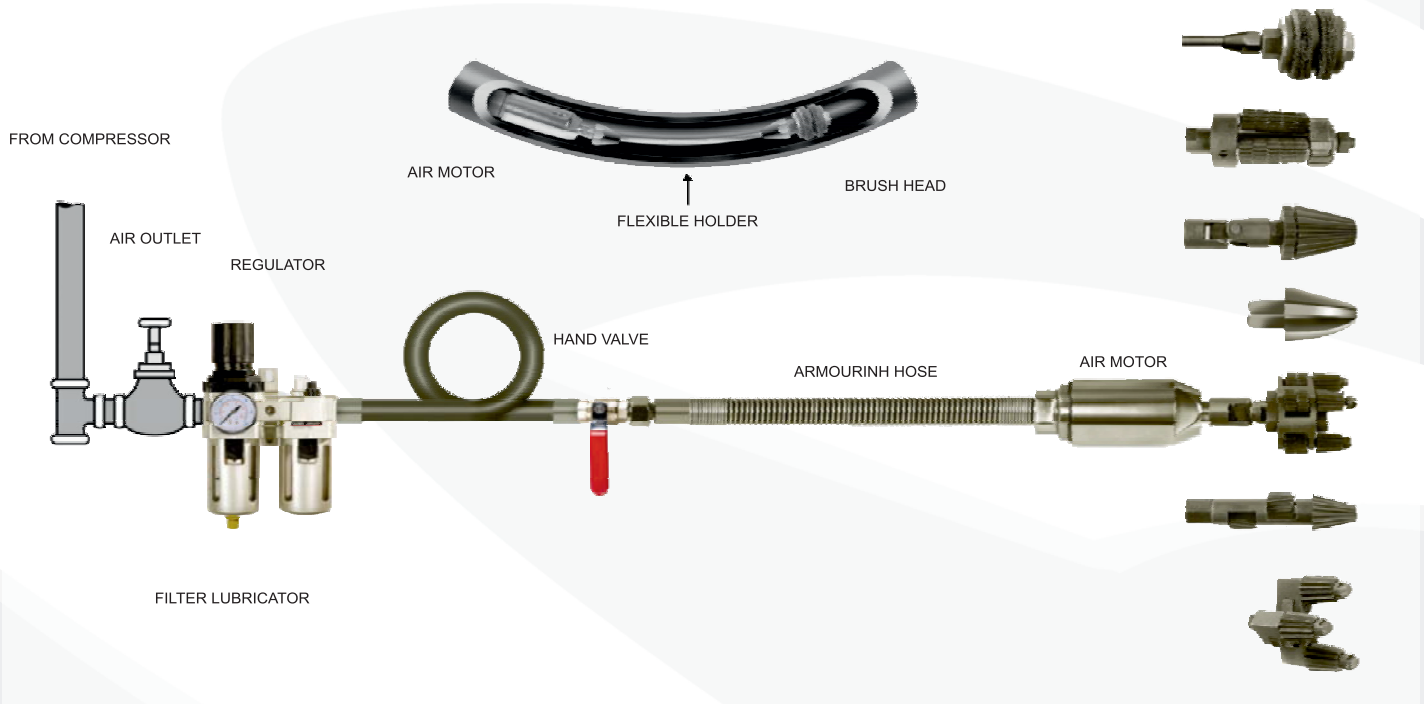
Universal Joint & Flexible Holder

Universal Joint & Flexible Holder :-

Commonly Used in between Air Motor & Cutter, Drill, Brushes, etc. to permit easy passage of motor & Tool head through curved Tubes.

TUBE CLEANING TOOL

Air Driven Tube Cleaner Work in Bend Tube



Precautions :-

The user has to take following precautions while operating the system. Always use the filtered & lubricated air with the help of F.R.L. unit which is supplied with the system. start the system after inserting the cleaning tool inside the tube. Never operate the system without inserting the cleaning tool inside the tube. Always shut-off the air operate valve before you take out the cleaning tool out of the tube.

Installation & Commessioning Requirement :-

The system Requires 5-6 bar (kg/cm²) of air at min 20C.F.M.