









Pipe Bevelling Machines
Pipe Cutting Machines
Grinding Machines
Pipe Stands and Clamps
Pipe Purging
Plate Bevellers
Heat Exchanger, Boiler & Bundle

CONTINUOUS HYDRAULIC TUBE PULLER

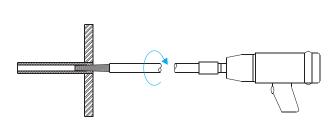




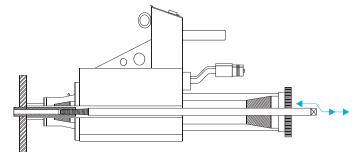
FEATURES:

- Pulling gun communicates with electric powerpack via 9v DC control. This ensures safety and eliminates the need of electrical cord between pump and gun that other manufacturers provide. In pneumatic version communication is via pneumatic control.
- Available with a choice of Electric-TPP System or Pneumatic-PPP System for hazardous, explosive working environments.
- Microprocessor controls on powerpack and gun ensure trouble free life.
- Removes tube without any damage to tube sheet.
- Low setup time and ease of operation.
- High power & High speed automatic cycling, for highest speed of pull available worldwide.
- Auto switchover from low pressure high flow to high pressure low flow on load and again back to low pressure high flow when load is released.
- Automatic slow start feature to minimize risk of breaking tubes and to conserve consumables.
- · Compact design of Powerpack and Gun.
- Interchangeable pulling guns with same Powerpack. 15 ton gun for light duty high speed work, 30 ton gun for heavy duty tube pulling and 45 ton gun for tubes upto 3" O.D.
- Pulls up to 3" OD tubes continuously, pulls up to 4" O.D. stub.
- Low maintenance cost and worldwide availability of components.
- Significant saving of time and money over conventional systems.
- Unit is portable with handle and mounted on four wheels for easy handling.
- Unit will pull tubes continuously through the gun effortlessly, needing only one man for operation.

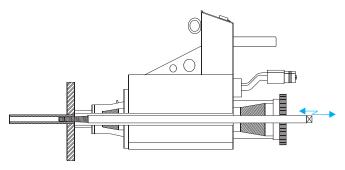
SEQUENCE OF OPERATION



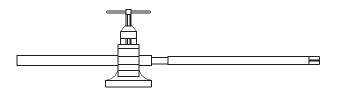
A) Thread mandrel into tube with Impact Wrench



C) Switch to Auto Cycle by pressing 'AUTO' button till tube is completely removed. Gun will continue to cycle till one of the other buttons is pressed. When the tube is free, a tool can be inserted into the jaws to enable the tube to be pulled by hand.



B) Mount Pulling Gun onto mandrel. Automatic Slow Start to first break expanded joint.



D) Unscrew mandrel from pulled tube and proceed to next tube.



CONTINUOUS HYDRAULIC TUBE PULLER



TPP-50 (Electric) Pump



PPP-50 (Pneumatic) Pump

TUBE PULLING POWERPACK - SPECIFICATIONS

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Model	Motor	Volts/ Phase	Power hp	Oil Tank Capacity Itrs.	Net Wt. kgs.	Dim. mm	Air Supply	Hyd.Hoses Size x Length inch x mtrs.
TPP-50	Siemens	415/3	5	90	220	1200 x 750 x 990	-	1/2"x5 & 3/4"x5
TPP-30	Siemens	230 / 1	3	12	42	500 x 410 x 750	-	1/2"x5 & 3/4"x5
PPP-50 (Pneumatic)	Gast	-	9	90	220	1200 x 750 x 990	180CFM AT 7 BAR	1/2"x5 & 3/4"x5

Note: Max. Working Pressure 350 Bar

ALL Powerpacks supplied with 5 mtr. long hydraulic hoses.

HYDRAULIC TUBE PULLING GUNS (ELECTRIC) - SPECIFICATIONS



Gun Model	Pulling Capacity tons	Max. Tube O.D. Thru Gun inch	Stub Pulling Capacity inch	We kgs.	ight		Free Pulling Speed (meter/min) with TPP-50 TPP-30 PPP-50		
HPG-15	15	1	1.1/2	26	57	5.2	1.8	5.6	
HPG-30	30	1.1/2	3	38	84	3.0	2.4	3.5	
HPG-45	45	3	4	78	172	2.0	2.0	2.3	



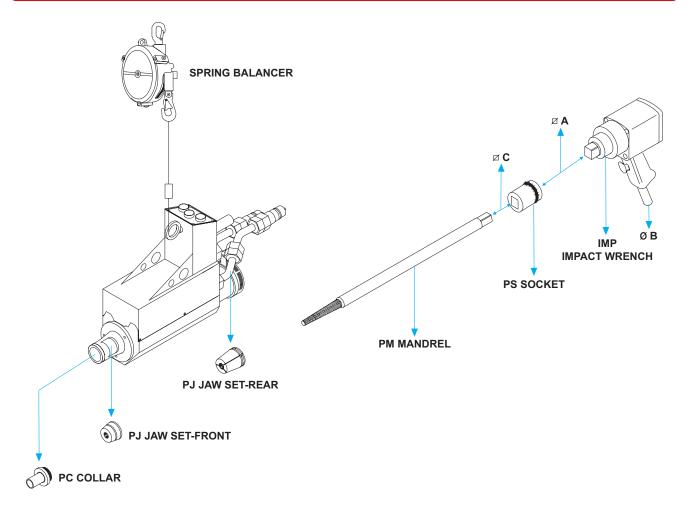
HYDRAULIC TUBE PULLING GUNS (PNEUMATIC) - SPECIFICATIONS

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Gun Model	Pulling Capacity tons	Max. Stub Pulli Tube O.D. Capacity Thru Gun inch inch		Weight		Free Pulling Speed (meter/min) with TPP-50 TPP-30 PPP-50		
	tons	IIICII	IIICII	kys.	105.	177-30	177-30	FFF-30
AHPG-15	15	1	1.1/2	26	57	5.2	1.8	5.6
AHPG-30	30	1.1/2	3	38	84	3.0	2.4	3.5
AHPG-45	45	3	4	78	172	2.0	2.0	2.3

Note: All pulling guns are supplied with Forward, Reverse, and Auto Cycle Switches.

ACCESSORIES FOR CONTINUOUS TUBE PULLER



SPRING BALANCER

- Used to suspend pulling guns for 'feather touch', operation.
- Frees the operator from handling weight of the gun, allowing him to concentrate on the tube pulling operation.

Model	Balance	r Range	For Pulling Gun	Weight	
Wiodei	kg	lbs	Model	kgs.	lbs.
SWF-30	20 - 30	44 - 66	HPG-15 / AHPG-15	9.5	21.0
SWF-40	30 - 40	66 - 88	HPG-30 / AHPG-30	10.5	23.1
SWF-85	70 - 85	154 - 187	HPG-45 / AHPG-45	15.0	33.0

IMP - IMPACT WRENCH

• Used to thread PM mandrels into tube with help of sockets.

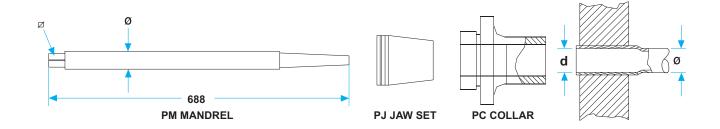
Model	Suited For Mandrel	Wei	ight	⊿ A	Øв	
	Model Numbers	kg lbs				
IMP-1	PM-7 to PM-37	5.0	11.0	3/4"	3/8"	
IMP-2	PM-19 to PM-95/102	10.5	23.0	1"	1/2"	

PS - SOCKET

• Used to connect impact wrench to pulling mandrel.

Model	⊿ A	Ø C
PS-1	3/4"	3/8"
PS-2	3/4"	1/2"
PS-3	3/4"	5/8"
PS-4	3/4"	3/4"
PS-5	3/4"	1"
PS-6	1"	3/4"
PS-7	1"	1"
PS-8	1"	1.1/2"

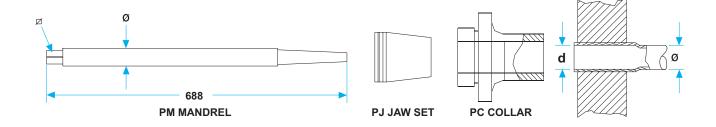
WORKING CONSUMABLES - CONTINUOUS TUBE PULLER



Tube Size			e I.D.	Ma	andrel		Jaw Set		Collar		
Tube S	ize		xpansion d	Model	Square Size	Model For HPG-15	Model For HPG-30	Model For HPG-45	Model For HPG-15	Model For HPG-30	Model For HPG-45
Ø	bwg	mm	inch	РМ	Ø	PJ 15	PJ 30	PJ 45	PC 15	PC 30	PC 45
3/8"	17-19	6.5-7.5	0.260-0.295	7	E/16"	1	1		11	11	
3/0	20-24	7.5-8.5	0.295-0.335	8	5/16"	l	I		11	11	
	14-16	8.5-9.5	0.335-0.375	9							
1/2"	17-18	9.5-10.5	0.375-0.415	10	3/8"	2	2		15	15	
1/2	19-21	10.5-11.5	0.4150.455	11	3/0				15	15	
	24	11.5-12.5	0.455-0.495	12							
	16-17	12.5-13.5	0.495-0.535	13 A							
5/8"	19-21	13.5-14.5	0.535-0.570	14 A	1/2"	3	3		18	18	
	23-24	14.5-15.5	0.570-0.610	15 A							
	11	12.5-13.5	0.495-0.535	13							
	12-13	13.5-14.5	0.535-0.570	14							
3/4"	14-15	14.5-15.5	0.570-0.610	15	5/8"	4	4		21	21	
3/4	16-17	15.5-16.5	0.610-0.650	16		·	·				
	18-20	16.5-17.5	0.650-0.690	17							
	21-24	17.5-18.5	0.690-0.730	18							
	14	17.5-18.5	0.690-0.730	18 S							
7/8"	16-17	18.5-19.5	0.730-0.770	19 S	5/8"	4/A	4/A		25	25	
	18-19	19.5-20.5	0.770-0.810	20 S							
	10-11	18.5-19.5	0.730-0.770	19							
	12	19.5-20.5	0.770-0.810	20							
1"	13-14	20.5-21.5	0.810-0.845	21	3/4"	5	_	_	00	28	28
ı	15-16	21.5-22.5	0.845-0.885	22		5	5	5	28	20	20
	18	22.5-23.5	0.885-0.925	23							
	19-20	23.5-24.5	0.925-0.965	24							
	13	21.5-22.5	0.845-0.886	22 G							
3/4" Gas	14-15	22.5-23.5	0.886-0.925	23 G			6	6		31	31
3/4 Gas	16-17	23.5-24.5	0.925-0.965	24 G			0	0		31	31
	19-21	24.5-25.5	0.965-1.005	25 G							
	10	24.5-25.5	0.965-1.005	25							
	11-12	25.5-26.5	1.005-1.045	26							
	13	26.5-27.5	1.045-1.085	27							
1.1/4"	14-15	27.5-28.5	1.085-1.125	28			7	7		34	34
	16-18	28.5-29.5	1.125-1.160	29							
	19-22	29.5-30.5	1.160-1.200	30							
	23-24	30.5-31.5	1.200-1.240	31	1"						
	9	25.5-26.5	1.005-1.045	26 G							
1" Gas	10	26.5-27.5	1.045-1.085	27 G			8	8		37	37
1 Gas	11-12	27.5-28.5	1.085-1.125	28 G			0	0		37	37
	13-14	28.5-29.5	1.125-1.160	29 G							
	10-11	31.5-32.5	1.240-1.280	32							
	12-13	32.5-33.5	1.280-1.320	33							
1.1/2"	14	33.5-34.5	1.320-1.360	34			0	9 9		41	41
1.1/2	15-17	34.5-35.5	1.360-1.400	35			Э			41	41
	18-20	35.5-36.5	1.400-1.440	36							
	21-24	36.5-37.5	1.440-1.475	37							

Note: All models indicated above are for continuous tube pulling. When you are using equipment for stub pulling, please contact us for modifications needed.

WORKING CONSUMABLES - CONTINUOUS TUBE PULLER



Tube Size			e I.D.	Ma	andrel		Jaw Set		Collar		
Tube Si	ze	after E	xpansion)	Model	Square Size	Model For HPG-15	Model For HPG-30	Model For HPG-45	Model For HPG-15	Model For HPG-30	Model For HPG-45
OD / Ø	bwg	mm	inch	PM	Ø	PJ 15	PJ 30	PJ 45	PC 15	PC 30	PC 45
	12	36.5-37.5	1.440-1.475	37G							
	13-14	37.5-38.5	1.475-1.515	38G							
1.1/4" Gas	15-16	38.5-39.5	1.515-1.555	39G			10	10		44	44
	17-19	39.5-40.5	1.555-1.595	40G							
	20-24	40.5-41.5	1.595-1.635	41G							
	10-11	37.5-38.5	1.475-1.515	38/44							
	12	38.5-39.5	1.515-1.555	39/44							
1.3/4"	13-14	39.5-40.5	1.555-1.595	40/44				11			48
1.3/4	15-16	40.5-41.5	1.595-1.635	41/44				11			40
	18-19	41.5-42.5	1.635-1.675	42/44	4 "						
	20-24	42.5-43.5	1.675-1.715	43/44	1"						
	11-12	42.5-43.5	1.715-1.755	43G							
1.1/2" Gas	13-14	43.5-44.5	1.755-1.795	44G				10			53
1.1/2 Gas	15-17	44.5-54.5	1.795-1.830	45G				12			53
	18-19	45.5-46.5	1.830-1.870	46G							
	10	43.5-44.5	1.830-1.870	44/51							
	11-12	44.5-45.5	1.870-1.910	45/51							
O"	13	45.5-46.5	1.910-1.950	46/51				13			54
2"	14-15	46.5-47.5	1.950-1.990	47/51				13			54
	16-18	47.5-48.5	1.870-1.910	48/51							
	19-22	48.5-49.5	1.910-1.950	49/51							
	9-10	49.5-50.5	1.950-1.990	50/57							
2.1/4"	11	50.5-51.5	1.990-2.030	51/57				14			60
	12-13	51.5-52.5	2.030-2.070	52/57							
	7	50.5-51.5	1.990-2.030	51G							
2" Gas	8	51.5-52.5	2.030-2.070	52G				15			63
	9	53.5-53.5	2.070-2.105	53G							
	7	53.5-54.5	2.015-2.145	54/63	1.1/2"						
2.1/2"	8	54.5-55.5	2.145-2.185	55/63				16			66
2.1/2	9	55.5-56.5	2.185-2.225	56/63				10			00
	10	56.5-57.5	2.225-2.265	57/63							
	7	66.5-67.5	2.580-2.620	67/76							
3"	8	67.5-68.5	2.620-2.660	68/76				17			80
3	9-10	68.5-69.5	2.660-2.695	69/76				17			00
	11	69.5-70.5	2.695-2.735	70/76							

Note: For Tubes larger than 3" O.D., please contact us for larger size working consumables and larger size tube pulling guns.

All models indicated above are for continuous tube pulling. When you are using equipment for stub pulling, please contact us for modifications needed.

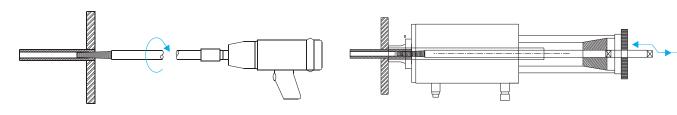
MASTER TUGGER HYDRAULIC TUBE PULLER





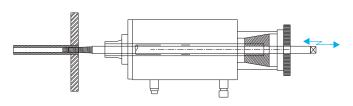
- Simple and robust operation.
- Very little training for operator needed. Set up in less than a minute.
- High pressure pump for pulling toughest jobs.
- Compact and lightweight gun and powerpack.
- Removes tube without damage.
- Low set up time / ease of operation.
- Available with choice of electric / pneumatic operation.
- Automatic switchover from low pressure to high pressure.
- Interchangeable pulling gun accessories compatible with existing systems on the market.
- Single man operation.

SEQUENCE OF OPERATION

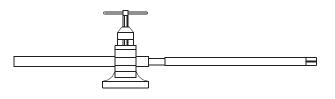


A) Thread mandrel into tube with Impact Wrench.

C) Start the pump using the start button on the Pendant. Press forward button to pull the tube and release the button for the return stroke. Push the Gun forward by hand till it touches the tube sheet and repeat the pulling / return motion. Continue the operation till the tube is completely out.



B) Mount Pulling Gun onto mandrel.



D) Unscrew mandrel from pulled tube and proceed to next tube.

MASTER TUGGER HYDRAULIC TUBE PULLER



STPP 300 (Electric) Pump

TUBE PULLING POWERPACK - SPECIFICATIONS

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Model	Volts/ Phase	Power hp	Oil Tank Capacity Itrs.	Net Wt.	Dim. mm	Hyd.Hoses Size x Length inch x mtrs.
STPP - 300	230 / 1	3	10	68	510 x 370 x 680	1/4" x 5 Twin Jack Hose
SPPP - 300 (Pneumatic)	-	-	10	65	510 x 370 x 680	1/4" x 5 Twin Jack Hose

Note: Max. Working Pressure 700 Bar

ALL Powerpacks supplied with 5 mtr. long hydraulic hoses.

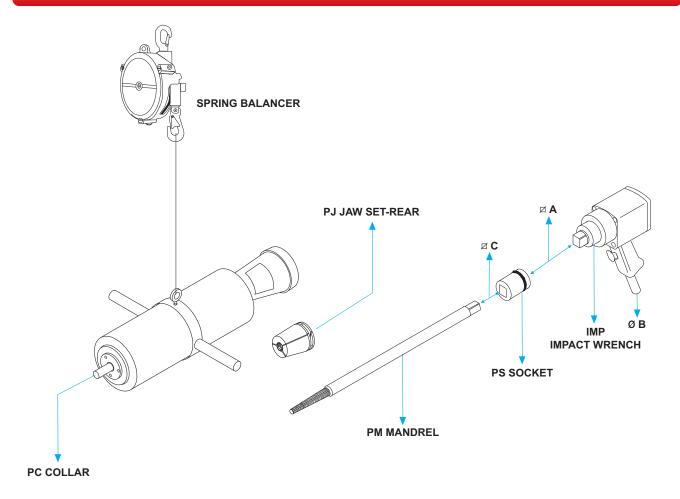


HYDRAULIC TUBE PULLING GUNS - SPECIFICATIONS

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Gun Model	Pulling Capacity tons	Max. Tube O.D. Thru Gun inch	Stub Pulling Capacity inch	Weight		Free Pulling Speed (meter/min) with STPP - 300	
SHPG - 15	15	1	1.1/2	18	40	3.3	
SHPG - 30	30	1.1/2	3	25	55	2	
SHPG - 45	45	3	4	51	112	1.3	

ACCESSORIES FOR MASTER TUGGER HYDRAULIC TUBE PULLER



SPRING BALANCER

- Used to suspend pulling guns for 'feather touch', operation.
- Frees the operator from handling weight of the gun, allowing him to concentrate on the tube pulling operation.

Model	Balance	r Range	For Pulling Gun	Weight		
Wodei	kg	lbs	Model	kgs.	lbs.	
SWF - 22	15 - 22	33 - 48	15T	8.0	17.6	
SWF - 30	22 - 30	48 - 66	30T	9.0	19.8	
SWF - 60	50 - 60	110 - 132	45T	12.0	26.4	

IMP - IMPACT WRENCH

• Used to thread PM mandrels into tube with help of sockets.

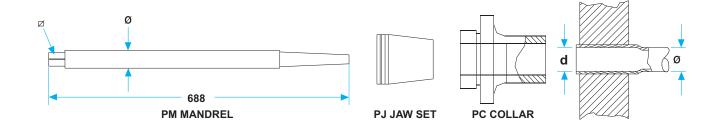
Model	Suited For Mandrel	Wei	ight	⊿ A	Øв	
	Model Numbers	kg	lbs			
IMP - 1	PM-7 to PM-37	5.0	11.0	3/4"	3/8"	
IMP - 2	PM-19 to PM-95/102	10.5	23.0	1"	1/2"	

PS - SOCKET

• Used to connect impact wrench to pulling mandrel.

Model	⊿ A	Ø C
PS - 1	3/4"	3/8"
PS - 2	3/4"	1/2"
PS - 3	3/4"	5/8"
PS - 4	3/4"	3/4"
PS - 5	3/4"	1"
PS - 6	1"	3/4"
PS - 7	1"	1"
PS - 8	1"	1.1/2"

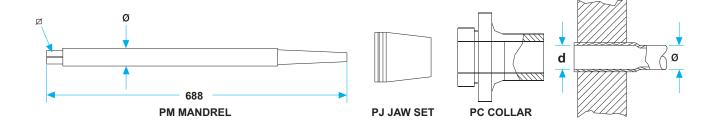
WORKING CONSUMABLES - MASTER TUGGER HYDRAULIC TUBE PULLER



Tube Si	ze	after E	oe I.D. xpansion d	Ma Model	andrel Square Size	Model For SHPG-15	Jaw Set Model For SHPG-30	Model For SHPG-45	Model For SHPG-15	Collar Model For SHPG-30	Model For SHPG-45
Ø	bwg	mm	inch	PM	Ø	PJ 15	PJ 30	PJ 45	PC 15	PC 30	PC 45
	17-19	6.5-7.5	0.260-0.295	7				1040			1 0 40
3/8"	20-24	7.5-8.5	0.295-0.335	8	5/16"	1	1		11	11	
	14-16	8.5-9.5	0.335-0.375	9							
	17-18	9.5-10.5	0.375-0.415	10							
1/2"	19-21	10.5-11.5	0.4150.455	11	3/8"	2	2		15	15	
	24	11.5-12.5	0.455-0.495	12							
	16-17	12.5-13.5	0.495-0.535	13 A							
5/8"	19-21	13.5-14.5	0.535-0.570	14 A	1/2"	3	3		18	18	
	23-24	14.5-15.5	0.570-0.610	15 A							
	11	12.5-13.5	0.495-0.535	13							
	12-13	13.5-14.5	0.535-0.570	14							
0/4"	14-15	14.5-15.5	0.570-0.610	15	5/8"	4	4		21	21	
3/4"	16-17	15.5-16.5	0.610-0.650	16	0/0		7		21	21	
	18-20	16.5-17.5	0.650-0.690	17							
	21-24	17.5-18.5	0.690-0.730	18							
	14	17.5-18.5	0.690-0.730	18 S							
7/8"	16-17	18.5-19.5	0.730-0.770	19 S	5/8"	4/A	4/A		25	25	
	18-19	19.5-20.5	0.770-0.810	20 S							
	10-11	18.5-19.5	0.730-0.770	19							
	12	19.5-20.5	0.770-0.810	20							
1"	13-14	20.5-21.5	0.810-0.845	21	3/4"	5	5	5	28	28	28
ı	15-16	21.5-22.5	0.845-0.885	22	3/4	5	5	5	20	20	20
	18	22.5-23.5	0.885-0.925	23							
	19-20	23.5-24.5	0.925-0.965	24							
	13	21.5-22.5	0.845-0.886	22 G							
3/4" Gas	14-15	22.5-23.5	0.886-0.925	23 G			6	6		31	31
0/4 Gus	16-17	23.5-24.5	0.925-0.965	24 G						01	01
	19-21	24.5-25.5	0.965-1.005	25 G							
	10	24.5-25.5	0.965-1.005	25							
	11-12	25.5-26.5	1.005-1.045	26							
	13	26.5-27.5	1.045-1.085	27			_	_		0.4	0.4
1.1/4"	14-15	27.5-28.5	1.085-1.125	28			7	7		34	34
	16-18	28.5-29.5	1.125-1.160	29							
	19-22	29.5-30.5	1.160-1.200	30	4.0						
	23-24	30.5-31.5	1.200-1.240	31	1"						
	9	25.5-26.5	1.005-1.045	26 G							
1" Gas	10	26.5-27.5	1.045-1.085	27 G			8	8		37	37
	11-12	27.5-28.5	1.085-1.125	28 G							
	13-14	28.5-29.5	1.125-1.160	29 G							
	10-11	31.5-32.5	1.240-1.280	32							
	12-13	32.5-33.5	1.280-1.320	33							
1.1/2"	14	33.5-34.5	1.320-1.360	34			9	9		41	41
	15-17	34.5-35.5	1.360-1.400	35							
	18-20	35.5-36.5	1.400-1.440	36							
	21-24	36.5-37.5	1.440-1.475	37							

Note: All models indicated above are for master tugger hydraulic tube pulling. When you are using equipment for stub pulling, please contact us for modifications needed.

WORKING CONSUMABLES - MASTER TUGGER HYDRAULIC TUBE PULLER



D Model Size SHPG-30 SHPG-45 SHPG-56 SHPG-30 SHPG-46 SHPG-30 SHPG-46 12 36.5-37.5 1.440-1.475 37G 13-14 37.5-38.5 1.475-1.515 38G 17-19 39.5-40.5 1.555-1.595 40G 20-24 40.5-41.5 1.595-1.635 41G 13-44 39.5-40.5 1.555-1.555 39/44 15-16 40.5-41.5 1.595-1.635 41/44 18-19 41.5-42.5 1.635-1.675 42/44 20-24 42.5-43.5 1.715-1.755 43G 11-12 42.5-43.5 1.795-1.795 44G 11-12 44.5-45.5 1.830-1.870 44/51 11-12 44.5-45.5 1.830-1.870 46/51 11-12 44.5-45.5 1.870-1.910 48/51 11-12 48.5-40.5 1.870-1.910 48/51 11-12 48.5-40.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-45.5 1.870-1.910 48/51 11-12 48.5-55.5 2.030-2.070 52/57 7 50.5-51.5 1.990-2.030 51/67 2 Gas 8 51.5-52.5 2.030-2.070 52/57 7 7 50.5-51.5 1.990-2.030 51/67 2 1/2" 8 54.5-55.5 2.145-2.185 55/63 9 55.5-56.5 2.145-2.285 55/63 10 56.5-57.5 2.250-2.260 67/76 3 8 67.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 9 - 10 68.5-68.5 2.680-2.680 68/76 10 10 10 10 10 10 44.4 44 44 44.4 44 44				e I.D.	Ma	andrel		Jaw Set			Collar	
12 36.5-37.5 1.440-1.475 37G 13-14 37.5-38.5 1.475-1.515 38G 13-14 37.5-38.5 1.475-1.515 38G 17-19 39.5-40.5 1.595-1.695 40G 20-24 40.5-41.5 1.595-1.695 40G 20-24 40.5-41.5 1.595-1.695 40G 10-11 37.5-38.5 1.475-1.515 38/44 12 38.5-39.5 1.515-1.555 39/44 12 38.5-39.5 1.515-1.555 39/44 12 38.5-39.5 1.515-1.555 39/44 13-14 39.5-40.5 1.555-1.595 40/44 18-19 41.5-42.5 1.635-1.675 42/44 20-24 42.5-43.5 1.715-1.755 43/64 18-19 41.5-42.5 1.635-1.675 42/44 20-24 42.5-43.5 1.715-1.755 43/64 11-12 42.5-43.5 1.715-1.755 43/64 11-12 42.5-43.5 1.715-1.755 44/66 11-12 42.5-43.5 1.715-1.755 44/66 11-12 42.5-43.5 1.715-1.755 44/66 11-12 42.5-45.5 1.870-1.910 45/51 11-12 43.5-44.5 1.830-1.870 44/51 11-12 44.5-45.5 1.870-1.910 45/51 12" 13 45.5-46.5 1.870-1.910 45/51 14-15 46.5-47.5 1.950-1.990 47/51 16-18 47.5-48.5 1.870-1.910 48/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 2" 13 45.5-6.5 1.870-1.910 48/51 11-12 45.5-45.5 1.870-1.910 48	Tube Si	ze		•	Model							Model For SHPG-45
13.14 37.5-38.5 1.475-1.515 38G 15.16 38.5-39.5 1.515-1.555 39G 17.19 39.5-40.5 1.555-1.595 40G 20.24 40.5-41.5 1.595-1.635 41G 20.24 40.5-41.5 1.595-1.635 41G 10.11 37.5-38.5 1.475-1.515 38/44 12 38.5-39.5 1.475-1.515 38/44 13.14 39.5-40.5 1.555-1.595 40/44 18.19 41.5-42.5 1.635-1.675 42/44 20.24 42.5-43.5 1.675-1.715 43/44 18.19 42.5-43.5 1.675-1.715 43/44 18.19 45.5-46.5 1.830-1.870 44/51 11.12 42.5-43.5 1.675-1.795 44G 15.16 40.5-41.5 1.830-1.870 44/51 15.17 44.5-54.5 1.830-1.870 44/51 11.12 44.5-45.5 1.870-1.910 48/51 11.12 44.5-45.5 1.870-1.910 48/51 11.12 44.5-45.5 1.910-1.950 46/51 11.12 44.5-45.5 1.910-1.950 48/51 11.12 48.5-40.5 1.910-1.950 48/51 11.12 48.5-40.5 1.910-1.950 48/51 11.12 48.5-40.5 1.910-1.950 48/51 11.12 48.5-55.5 2.030-2.070 52/57 2.1/4" 11 50.5-51.5 1.990-2.030 51/67 12.13 51.5-52.5 2.030-2.070 52/57 2" Gas 8 51.5-52.5 2.030-2.070 52/57 2" Gas 8 51.5-52.5 2.030-2.070 52/6 9 53.5-53.5 2.145-2.185 55/63 10 56.5-57.5 2.225-2.265 57/63 7 66.5-67.5 2.580-2.660 68/76 9-10 68.5-69.5 2.660-2.696 68/76 9-10 68.5-69.5 2.660-2.696 68/76 9-10 68.5-69.5 2.660-2.696 68/76 9-10 68.5-69.5 2.660-2.696 68/76 9-10 68.5-69.5 2.660-2.696 68/76 9-10 68.5-69.5 2.660-2.696 68/76 9-10 68.5-69.5 2.660-2.696 68/76 9-10 68.5-69.5 2.660-2.696 68/76	OD / Ø	bwg	mm	inch	PM	Ø	PJ 15	PJ 30	PJ 45	PC 15	PC 30	PC 45
1.1/4" Gas		12	36.5-37.5	1.440-1.475	37G							
17-19 39.5-40.5 1.595-1.595 40G 20-24 40.5-41.5 1.595-1.635 41G 10-11 37.5-38.5 1.475-1.515 38/44 12 38.5-39.5 1.515-1.595 39/44 13-14 39.5-40.5 1.595-1.595 39/44 15-16 40.5-41.5 1.595-1.636 41/44 18-19 41.5-42.5 1.595-1.636 41/44 18-19 41.5-42.5 1.595-1.715 43/44 11-12 42.5-43.5 1.675-1.715 43/44 11-12 42.5-43.5 1.675-1.715 43/44 11-12 42.5-43.5 1.795-1.830 45G 11-17 44.5-54.5 1.830-1.870 46G 10 43.5-44.5 1.830-1.870 46G 11 43.5-44.5 1.870-1.910 45/51 11-12 44.5-45.5 1.870-1.910 45/51 11-12 44.5-45.5 1.970-1.990 47/51 11-12 44.5-45.5 1.970-1.990 47/51 11-12 44.5-45.5 1.970-1.990 47/51 11-12 44.5-45.5 1.970-1.990 47/51 11-12 45.5-45.5 1.990-2.030 51/57 12-13 51.5-52.5 2.030-2.070 52/67 7 50.5-51.5 1.990-2.030 51/67 2"Gas 8 51.5-52.5 2.030-2.070 52/67 7 53.5-54.5 2.070-2.105 53G 7 66.5-67.5 2.580-2.620 67/76 3" 8 67.5-68.5 2.660-2.666 68/76 9-10 68.5-69.5 2.660-2.666 68/76 9-10 68.5-69.5 2.660-2.669 69/76		13-14	37.5-38.5	1.475-1.515	38G							
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10-11 37.5-38.5 1.475-1.515 38/44 12 38.5-39.5 1.515-1.555 39/44 1.3/4" 13-14 39.5-40.5 1.555-1.595 40/44 15-16 40.5-41.5 1.595-1.635 41/44 18-19 41.5-42.5 1.635-1.675 42/44 20-24 42.5-43.5 1.675-1.715 43/44 11-12 42.5-43.5 1.715-1.755 43/64 11-12 42.5-43.5 1.795-1.830 45/6 18-19 45.5-46.5 1.830-1.870 46/61 10 43.5-44.5 1.830-1.870 44/51 11-12 44.5-45.5 1.870-1.910 45/51 2" 13 45.5-46.5 1.870-1.910 45/51 16-18 47.5-48.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 2" 11 50.5-51.5 1.990-2.030 51/57 2" 35.5-50.5 2.030-2.070 52/67 2" 3 8 54.5-55.5 2.145-54/63 1.1/2" 2" 63.5-54.5 2.015-2.145 54/63 1.1/2" 2" 66.5-67.5 2.580-2.660 68/6 9 9 10 68.5-69.5 2.660-2.695 69/76		17-19	39.5-40.5	1.555-1.595	40G							
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20-24 42.5-43.5 1.675-1.715 43/44 11-12 42.5-43.5 1.715-1.755 43G 11-12 42.5-43.5 1.715-1.755 43G 13-14 43.5-44.5 1.755-1.795 44G 15-17 44.5-54.5 1.795-1.830 45G 18-19 45.5-46.5 1.830-1.870 46G 10 43.5-44.5 1.830-1.870 44/51 11-12 44.5-45.5 1.870-1.910 45/51 2" 13 45.5-46.5 1.910-1.950 46/51 14-15 46.5-47.5 1.950-1.990 47/51 16-18 47.5-48.5 1.870-1.910 49/51 19-22 48.5-49.5 1.910-1.950 49/51 2.1/4" 11 50.5-51.5 1.990-2.030 51/57 12-13 51.5-52.5 2.030-2.070 52/57 7 50.5-51.5 1.990-2.030 51G 2" Gas 8 51.5-52.5 2.030-2.070 52/57 7 53.5-54.5 2.015-2.145 54/63 9 53.5-53.5 2.070-2.105 53G 7 53.5-54.5 2.145-2.185 55/63 9 55.5-56.5 2.185-2.25 56/63 10 56.5-57.5 2.225-2.265 56/63 10 56.5-57.5 2.225-2.265 56/63 10 56.5-67.5 2.580-2.620 67/76 8 67.5-68.5 2.620-2.660 68/76 9-10 68.5-69.5 2.660-2.695 69/76	1.3/4	15-16	40.5-41.5	1.595-1.635	41/44				11			40
11-12 42.5-43.5 1.6/5-1./15 43/44 11-12 42.5-43.5 1.715-1.755 43/G 13-14 43.5-44.5 1.755-1.795 44/G 15-17 44.5-54.5 1.795-1.830 45/G 18-19 45.5-46.5 1.830-1.870 44/51 11-12 44.5-44.5 1.830-1.870 44/51 11-12 44.5-44.5 1.870-1.910 45/51 13 45.5-46.5 1.910-1.950 49/51 14-15 46.5-47.5 1.950-1.990 47/51 16-18 47.5-48.5 1.870-1.910 48/51 19-22 48.5-49.5 1.910-1.950 49/51 2.1/4" 11 50.5-51.5 1.990-2.030 51/57 12-13 51.5-52.5 2.030-2.070 52/57 7 50.5-51.5 1.990-2.030 51/57 2" Gas 8 51.5-52.5 2.030-2.070 52/67 9 53.5-53.5 2.070-2.105 53/G 7 53.5-54.5 2.185-2.25 56/63 9 55.5-56.5 2.185-2.255 56/63 10 56.5-57.5 2.225-2.265 57/63 7 66.5-67.5 2.225-2.265 57/63 7 66.5-67.5 2.580-2.260 67/76 8 67.5-68.5 2.620-2.660 68/76 9-10 68.5-69.5 2.660-2.695 69/76		18-19	41.5-42.5	1.635-1.675	42/44	4 "						
1.1/2" Gas		20-24	42.5-43.5	1.675-1.715	43/44	1"						
1.1/2" Gas 15-17 44.5-54.5 1.795-1.830 45G 18-19 45.5-46.5 1.830-1.870 46G 11-12 44.5-45.5 1.870-1.910 45/51 11-12 44.5-45.5 1.870-1.910 45/51 14-15 46.5-47.5 1.950-1.990 47/51 16-18 47.5-48.5 1.870-1.910 48/51 19-22 48.5-49.5 1.910-1.950 49/51 19-22 48.5-49.5 1.910-1.950 49/51 11-13 51.5-52.5 2.030-2.070 52/57 12-13 51.5-52.5 2.030-2.070 52/57 12-13 51.5-52.5 2.030-2.070 52/65 9 53.5-53.5 2.070-2.105 53G 9 53.5-53.5 2.145-2.145 55/63 9 55.5-56.5 2.145-2.185 55/63 10 56.5-57.5 2.255-2.265 57/63 10 56.5-67.5 2.580-2.620 67/76 8 67.5-68.5 2.620-2.660 68/76 9-10 68.5-69.5 2.660-2.695 69/76		11-12	42.5-43.5	1.715-1.755	43G							
18-17	1 1 (0" C	13-14	43.5-44.5	1.755-1.795	44G				10			F0
10 43.5-44.5 1.830-1.870 44/51 11-12 44.5-45.5 1.870-1.910 45/51 13 45.5-46.5 1.910-1.950 46/51 14-15 46.5-47.5 1.950-1.990 47/51 16-18 47.5-48.5 1.870-1.910 48/51 19-22 48.5-49.5 1.910-1.950 49/51 2.1/4" 11 50.5-51.5 1.990-2.030 51/57 12-13 51.5-52.5 2.030-2.070 52/57 7 50.5-51.5 1.990-2.030 51/6 2" Gas 8 51.5-52.5 2.030-2.070 52/6 9 53.5-53.5 2.070-2.105 53G 7 53.5-54.5 2.145-2.145 54/63 10 56.5-57.5 2.225-2.265 57/63 7 66.5-67.5 2.2580-2.620 67/76 3" 8 67.5-68.5 2.660-2.695 69/76	1.1/2 Gas	15-17	44.5-54.5	1.795-1.830	45G				12			53
2"		18-19	45.5-46.5	1.830-1.870	46G							
2"		10	43.5-44.5	1.830-1.870	44/51							
14-15 46.5-47.5 1.950-1.990 47/51 16-18 47.5-48.5 1.870-1.910 48/51 19-22 48.5-49.5 1.910-1.950 49/51 2.1/4" 11 50.5-51.5 1.990-2.030 51/57 12-13 51.5-52.5 2.030-2.070 52/57 7 50.5-51.5 1.990-2.030 51G 2" Gas 8 51.5-52.5 2.030-2.070 52G 9 53.5-53.5 2.070-2.105 53G 7 53.5-54.5 2.015-2.145 54/63 9 55.5-56.5 2.145-2.185 55/63 9 55.5-56.5 2.185-2.225 56/63 10 56.5-57.5 2.225-2.265 57/63 7 66.5-67.5 2.580-2.620 67/76 3" 8 67.5-68.5 2.620-2.660 68/76 9-10 68.5-69.5 2.660-2.695 69/76		11-12	44.5-45.5	1.870-1.910	45/51							
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9-10 68.5-69.5 2.660-2.695 69/76	۵"	8	67.5-68.5	2.620-2.660	68/76				17			80
	3	9-10	68.5-69.5	2.660-2.695	69/76				17			00
11 69.5-70.5 2.695-2.735 70/76		11	69.5-70.5	2.695-2.735	70/76							

Note: For Tubes larger than 3" O.D., please contact us for larger size working consumables and larger size tube pulling guns.

All models indicated above are for master tugger hydraulic tube pulling. When you are using equipment for stub pulling, please contact us for modifications needed.

THE SPINNER

An automatic tube spinner capable of running, at

high speed, tubes out of a heat exchanger, even if the tubes are corroded and dirty.

The electric-hydraulic power unit (pneumatic also available) drives two hydraulic motors for extracting tubes up to 1 1/2" outside diameter.

FEATURES

- Fully self contained hydraulic system with adjustable speed flow control.
 Suspended via a spring balancer for weightless
- operation.
- Reacts against the tube sheet or the rear of a pulling cylinder.
- Used in conjunction with your existing puller.
- Use simultaneously during pulling operations for maximum productivity.
- Requires only 150 mm tube protrusion to capture the tubė.
- Uses Interchangeable pulling collars and roller sets.

Power unit:

Electric motor 400 volt, 3 phase, 7.5 kw (10 Hp) or Pneumatic motor with air consumption 3500 Ltr./min. at 6 bar Weight: 230 kg.

Complete supplied with:

- Hydraulic hose set complete with flat faced couplings, 6 m in length.
- Remote pendant control with 6 m of cable.
 Spring balancer.

Spinning head:

Pulling force: up to 5 ton.
Pulling speeds: up to 20 meters per minute.
Weight: 44 kg.

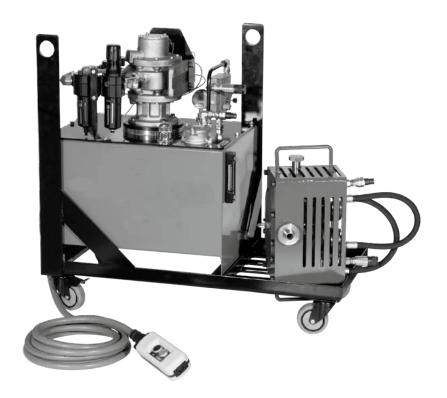
Consumables

For each tube OD, a roller set (2 per set) and a pulling

collar are required.







HYDRAULIC PIPE VICE

The air driven foot operated hydraulic pipe vice is used to remove the tube puller spear from the tube after the tube extraction process.



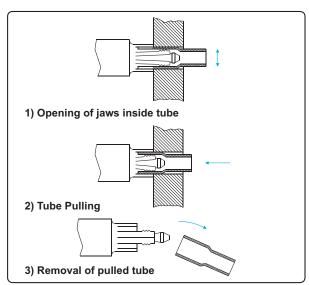
AUTO STUB PULLER



FEATURES:

- Designed for fast removal of ferrous and non-ferrous tubes from Condensers, Heat Exchangers, and Boilers.
- A rapid stroke allows the removal of 10 tubes a minute with little operator efforts.
- Gripping and pulling done in single operation.
- Compact and lightweight pulling gun, easy to operate inside boiler drum with 24 Volt DC control.
- Auto ejection of tube after removal.
- Remove tubes without any damage to tube sheet.
- Pneumatic version available for hazardous and explosive areas.
- Low setup time and ease of operation.
- Auto Switchover from low-pressure high flow to high-pressure low flow on load and back again when load is released.
- Interchangeable pulling gun with same power pack.
- Significant savings of time & money over conventional methods of stub removal.
- Can pull from 13 mm to 51 mm I.D. tubes.

OPERATION



AUTO STUB PULLER SET

Model	Tube \$	Tube Size ID Stub Pulling Gun		Hydraulic Powerpack	Spring Balancer Model To	
	mm	inch	Woder	Model	Suspend Gun	
ASP-1	13 - 31	1/2 - 1.1/4	CTP - 900	PPP-35 / EPP - 15	SWF - 22	
ASP-2	31 - 51	1.1/4 - 2	CTP - 1100	PPP-35 / EPP - 15	SWF - 40	

STUB PULLING GUN - SPECIFICATIONS

Model Number	CTP-900	CTP-1100
Capacity / inside dia. of expanded tube (mm)	13 to 31	31 to 51
Maximum stroke (mm)	75	120
Weight (kg)	21	39
Max. Working Pressure (bar)	700	700
Max. Pulling force (ton)	13	31



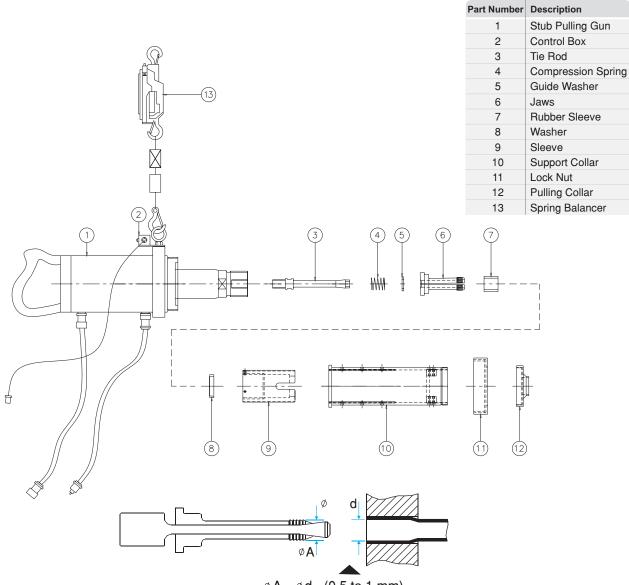
HYDRAULIC POWERPACK - SPECIFICATIONS

Model Number	PPP-35	EPP-15	
Power	Pneumatic	Electric	
Motor H.P	3.5	1.5	
Flow rate	4.5 lpm at 0 - 70 bar	3.5 lpm at 0 - 70 bar	
1 low rate	1.8 lpm at 70 - 700 bar	0.45 lpm at 70 - 700 bar	
Tank capacity (liters)	10	10	
Weight including oil (kg)	40	52	



Note: 5 mtr. long Remote Control and 5 mtr. long Hose set are supplied with Powerpack.

WORKING CONSUMABLES FOR AUTO STUB PULLER



 $\emptyset A = \emptyset d - (0.5 \text{ to } 1 \text{ mm})$

ØA: diameter of jaws

Ød: Inside diameter of expanded tube

JAWS FOR CTP-900

Ø A		Model
mm	inch	
12	.472	960/120
13	.512	960/130
14	.551	960/140
15	.591	960/150
16	.630	960/160
17	.669	960/170
18	.709	960/180
19	.748	960/190
20	.787	960/200
21	.827	960/210
22	.866	960/220
23	.906	960/230
24	.945	960/240
25	.984	960/250
26	1.024	960/260
27	1.063	960/270
28	1.102	960/280
29	1.142	960/290
30	1.181	960/300

JAWS FOR CTP-1100

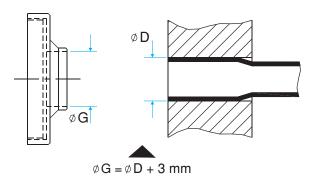
Ø A		Model
mm	inch	
31	1.220	1160/310
32	1.260	1160/320
33	1.299	1160/330
34	1.339	1160/340
35	1.378	1160/350
36	1.417	1160/360
37	1.457	1160/370
38	1.496	1160/380
39	1.535	1160/390
40	1.575	1160/400
41	1.614	1160/410
42	1.654	1160/420
43	1.693	1160/430
44	1.732	1160/440
45	1.772	1160/450
46	1.811	1160/460
47	1.850	1160/470
48	1.890	1160/480
49	1.929	1160/490
50	1.969	1160/500

WORKING CONSUMABLES FOR AUTO STUB PULLER

JAWS - TIE ROD - SUPPORT COLLAR - SLEEVE - PULLING COLLAR FOR CTP TUBE PULLER

			in in	•		
Gun Model	Jaws Model	Tie Rod Model	Support Collar	Sleeve Model	Pulling Collar Model	Spring Balancer
	960/120 to 960/140	970/55				
	960/150 to 960/180	970/60			PC-950	SWF-22
CTP-900	960/190 to 960/200	970/80	SC-980	S-990	Refer chart below	
	960/210 to 960/240	970/120			Tieler chart below	
	960/250 to 960/300	970/160				
	1160/310 to 1160/350	1170/220				
OTD 1100	1160/360 to 1160/400	1170/270	CO 1100	S-1190	PC-1150 Refer chart below	CWE 40
CTP-1100	1160/410 to 1160/450	1170/320	SC-1180	5-1190		SWF-40
	1160/460 to 1160/500 1170/370					

COLLARS FOR CTP TUBE PULLERS



ØA: inside diameter of collar

 $\emptyset \, D$: outside diameter of tube to be pulled

FOR CTP - 900
PULLING COLLAR PC-950

OD OF TUBE			E DIA. DLLAR	Model
mm	inch	mm	inch	
15.87	5/8"	19.0	0.748	PC-950/190
19.05	3/4"	22.0	0.866	PC-950/220
22.22	7/8"	25.0	0.984	PC-950/250
25.40	1"	29.0	1.142	PC-950/290
25.40	1.1/8"	32.0	1.260	PC-950/320
31.75	1.1/4"	35.0	1.378	PC-950/350
34.92	1.3/8"	38.0	1.496	PC-950/370

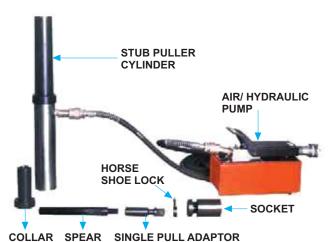
FOR CTP - 1100

PULLING COLLAR PC-1150

OD OF TUBE			E DIA. OLLAR	Model
mm	inch	mm	inch	
38.10	1.1/2"	41.0	1.614"	PC-1150/410
41.27	1.5/8"	44.0	1.732"	PC-1150/440
44.45	1.3/4"	48.0	1.890"	PC-1150/480
47.62	1.7/8"	51.0	2.001"	PC-1150/510
50.80	2"	54.0	2.126"	PC-1150/540
53.97	2.1/8"	57.0	2.244"	PC-1150/570



AIR / HYDRAULIC STUB PULLER



FEATURES:

- Improved productivity and better operator control through foot pedal.
- Extremely compact, durable, lightweight and portable package-useful in confined areas.
- Makes pulling tubes faster and easier.
- Quick and easy arrangement to reduce downtime.
- Safe. Totally air operated for use in explosive environments.

Air-Powered Hydraulic Stub Puller set consists of :

Self Tapping Spear . Air Powered hydraulic Pump with FRL unit. Stub Puller cylinder assembly (supplied in 2 models). Carrying case.

AIR / HYDRAULIC PUMP - MODEL NO. ASP-1008

Length (mm)	264
Width (mm)	135
Height (mm)	205
Weight without oil (kg)	6.6
Hose Length (ft.)	6
Hose I.D. (Inch)	1/4"
Air inlet Port	1/2" BSP
Hydraulic Port	3/8" NPT
Hydraulic Oil	VG ISO 68 Grade
Working Air pressure (bar)	7
Working hydraulic pressure (bar)	700

STUB PULLER CYLINDER

Model	AHSP-4	AHSP-9		
Extraction Load (Ton)	4	9		
Recommended Tube Sizes	Up to 3/4" OD	Up to 1.1/4" OD		
Overall Dimension (mm) L x Ø	550 xØ65.0	550 x Ø 104.0		
Stroke (mm)	150	150		
Pulling Speed Secs. / Stroke	15	30		
Weight (kg) with accessories	9	18.5		



SPRING BALANCER

Model	Balancing Capacity	Suitable For	
SWF-9	5 - 9 kgs	AHSP-4	
SWF-22	15 - 22 kgs	AHSP-9	

PULLING SPEARS

Model	Tube O.D. inch	Tube thk. bwg	Model	Tube O.D. inch	Tube thk. bwg
SS-0916	3/8	16-17	SS-2212	7/8	12-13
SS-0918	3/8	18-19	SS-2214	7/8	14-15
SS-0920	3/8	20-21	SS-2216	7/8	16-17
SS-0922	3/8	22-23	SS-2218	7/8	18-19
SS-1214	1/2	14-15	SS-2220	7/8	20-21
SS-1216	1/2	16-17	SS-2509	1	9-10
SS-1218	1/2	18-19	SS-2510	1	10-11
SS-1220	1/2	20-21	SS-2512	1	12-13
SS-1222	1/2	22-23	SS-2514	1	14-15
SS-1512	5/8	12-13	SS-2516	1	16-17
SS-1514	5/8	14-15	SS-2518	1	18-19
SS-1518	5/8	18-19	SS-2520	1	20-21
SS-1520	5/8	20-21	SS-3112	1.1/4	12-13
SS-1911	3/4	11-12	SS-3114	1.1/4	14-15
SS-1912	3/4	12-13	SS-3116	1.1/4	16-17
SS-1914	3/4	14-15	SS-3118	1.1/4	18-19
SS-1916	3/4	16-17	SS-3120	1.1/4	20-21
SS-1918	3/4	18-19			
SS-1920	3/4	20-21			

SELECTION CHART FOR SPARES

Spares	Spare Code	Suitable For
Filter Regulator Lubricator (FRL)	ASP-1001	
QRC for air inlet	ASP-1006	
QRC WP-700 bar (male)	ASP-1010	AHSP-4/AHSP-9
Hydraulic hose	ASP-1011	
QRC WP-700 bar (female)	ASP-1012	
Support Collar -1	ASP-1014a	AHSP-4
Support Collai -1	ASP-1014b	AHSP-9
Spear Lock Adapter	ASP-1015a	AHSP-4
Opear Lock Adapter	ASP-1015b	AHSP-9
Horse Shoe Lock	ASP-1016a	AHSP-4
HOISE SHOE LOCK	ASP-1016b	AHSP-9
Single Pull Adapter	ASP-1017a	AHSP-4
Single I dii Adaptei	ASP-1017b	AHSP-9

- **NOTE: •** Pulling Spears, Single and Double Pull Adaptors, Horse Shoe Locks and Extensions are compatible for use with 'Pine Jenny' type tube pullers.
 - For larger size tube pulling spears, please enquire.







TUBE WALL REDUCER

FEATURES:

- Used to 'thin' the walls of heavy gauge tubes as a step in their removal from tube sheet.
- Suffix model number with tube gauge when ordering. Example for 3/4"O.D. 16G, model number will be WR-750-16.
- Wall reducers available for mm tube sizes also. Please enquire.
- Wall reducers are suited for tube sheets up to 5" thick. Longer reaches are available.

TUBE DRIFT/KNOCKOUT TOOL

FEATURES

- Used with pneumatic chipping hammer to knock out tubes / tube stubs from tube sheet.
- Available in 01 and 06 shanks as standard. 15 (Jumbo) shank available on request.
- Suffix model number with tube gauge and shank when ordering. Example for 3/4" O.D. 16G, 06 shank, model number will be KT-750-16-06.
- Tube Drifts are available for mm tube sizes also. Please enquire.
- Standard reach is 6". Longer reaches are available.

COLLAPSING TOOL

FEATURES:

- Used to collapse tube and drive out collapsed tube from tube sheet with a chipping hammer.
- Recommended for use on 16G and thinner tubes.
- Available on 01 and 06 shanks as standard.
- Suffix model number with shank number when ordering. Example for 3/4" O.D. 16G, 06 shank, model number will be CT-750-06.
- Collapsing tools are available for mm tube sizes and larger tube sizes.
 Please enquire.

Tube O.D. inch	Model Number	MT Shank#
3/8	WR-375	1
1/2	WR-500	2
5/8	WR-625	2
3/4	WR-750	2
7/8	WR-875	2
1	WR-1000	3
1.1/4	WR-1250	3
1.1/2	WR-1500	3
1.3/4	SH-1750	3
2	SH-2000	3
2.1/2	SH-2500	4
2.3/4	SH-2750	4
3	SH-3000	4
3.1/4	SH-3250	4
3.1/2	SH-3500	4
4	SH-4000	4

Tube O.D. inch	Model Number
3/8	KT-375
1/2	KT-500
5/8	KT-625
3/4	KT-750
7/8	KT-875
1	KT-1000
1.1/4	KT-1250
1.1/2	KT-1500
1.3/4	KT-1750
2	KT-2000
2.1/2	KT-2500
2.3/4	KT-2750
3	KT-3000
3.1/4	KT-3250
3.1/2	KT-3500
4	KT-4000

Tube O.D. inch	Model Number
3/8	CT-375
1/2	CT-500
5/8	CT-625
3/4	CT-750
7/8	CT-875
1	CT-1000
1.1/4	CT-1250
1.1/2	CT-1500
1.3/4	CT-1750
2	CT-2000
2.1/2	CT-2500



Chipping Hammer with safety retainer for use with Tube Drifts / Collapsing Tools.

MODEL CH-1 - SPECIFICATION

Blows/min	Bore	Stroke	Weight	
1600	1.1/8" (28.5mm)	3.1/4" (82.5mm)	16lbs (7.0kg)	



PUSH TYPE INTERNAL TUBE CUTTER - ATP SERIES





- "Push Type" Internal Tube Cutter quickly cuts through the walls of ferrous tubes in Condensers and Heat Exchangers as a step in their removal from the tube sheet.
- This sturdy "Push Type" Internal Tube Cutter 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 a 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 increments of 2"(50.8mm). "A" reach = 6"(152.4mm). "B" reach = 8"(203.2mm). "C" reach = 10"(254.0mm) etc. All Tube Cutters come with a complete set of pilots covering the entire range of tube thicknesses for a particular tube O.D. (ATP-625 tube cutters come with a built in pilot suitable for one tube ID only.)
- All Cutters are available for MM tube sizes also. Please enquire.

Tube O.D.	Tube Gauge (BWG)	Tube Cutter Model No. (Std. Reach)	Spare Cutting Bit Model No.
5/8"	14 - 22	ATP-625	ATP-625-SB
3/4"	14 - 22	ATP-750	ATP-750-SB
7/8"	14 - 22	ATP-875	ATP-875-SB
1"	12 - 22	ATP-1000	ATP-1000-SB
1.1/4"	12 - 22	ATP-1250	ATP-1250-SB
1.1/2"	12 - 22	ATP-1500	ATP-1500-SB

Note: When ordering Spare Cutting Bits, please specify whether ordering for Non Ferrous, Ferrous or Stainless Tubes. Cutter Bits for these 3 types of tubes are different. Please refer to operation manual for parts list and detailed features.

INTERNAL TUBE CUTTER - PR68 SERIES





- PR-68 tube cutters are ideal for cutting thick walled boiler tubes of 2" O.D. and higher.
- The Internal Tube Cutter PR-68 is driven via the square in a clockwise direction using either an electric, pneumatic or hydraulic driving machine.
- PR-68 type tube cutters are available in standard reach of 4" (100mm). Additional reaches in increments of 4" are available up to 16" (400mm).

Size	Tool Model	Spare Bit Model	Tube I.	I.D. Range Max. Tube O.D		ıbe O.D.	Body D	iameter	Drive Square
	Number	Number	mm	inch	mm	inch	mm	inch	Male
095	0680951	1000051	10 - 12	.394472	15	.591	9.5	.374	
105	0681051	1680951	11 - 13	.433512	18	.709	10.5	.413	
115	0681151	1681151	12 - 14	.472551	19	.748	11.5	.453	
125	0681251		13 - 15	.519591	20	.787	12.5	.492	
135	0681351	1681251	14 - 17	.551669	23	.906	13.5	.531	
155	0681551		16 - 19	.630748	25	.984	15.5	.610	1/2"
175	0681751	1681751	18 - 21	.709827	27	1.063	17.5	.689	1/2
195	0681951	1681951	20 - 25	.787984	34	1.339	19.5	.768	
245	0682451	1682451	25 - 30	.984 - 1.181	38	1.496	24.5	.965	
290	0682901		30 - 35	1.181 - 1.378	43	1.693	29	1.142	
330	0683301	1682901	35 - 40	1.378 - 1.575	48	1.890	33	1.299	
380	0683801		40 - 50	1.575 - 1.969	58	2.126	38	1.496	
480	0684801		50 - 60	1.969 - 2.362	68	2.677	48	1.890	
530	0685301	1684801	55 - 65	2.165 - 2.559	73	2.874	53	2.087	
630	0686301		65 - 75	2.559 - 2.953	83	3.268	63	2.480	3/4"
730	0687301		75 - 85	2.953 - 3.346	93	3.661	73	2.874	3/4
830	0688301	1687301	85 - 95	3.346 - 3.740	103	4.055	83	3.268	
930	0689301		95 - 105	3.740 - 4.134	113	4.449	93	3.661	

Note: Refer to operation manual for detailed features and parts list.

ONE REVOLUTION INTERNAL TUBE CUTTER - OTC SERIES







- "One Revolution" Internal Tube Cutter pierces and cuts off non-ferrous and thin walled ferrous tubes in one revolution.
- This "One Revolution" Internal Tube Cutter is designed for hand operation using a ratchet handle.
- The Cutter Tool Bit operates on an eccentric principle. The Tube Cutter is entered in the tube with the Tool Bit in closed position, ratchet is applied and turned in clockwise direction. The Tool Bit contacts the tube during the One Revolution and pierces the tube wall and as turning is continued the Tool Bit shears through the tube along its circumference. This Cutter is fitted with an adjustable collar enabling it to reach into tubes at various distances and they are available in optional increments of 2"(50.8mm). Standard adjustable reach is 6"(152.4mm). "A" reach = 8"(203.2). "B" reach = 10"(254.0mm). "C" reach = 12"(304.8mm) etc.

All Cutters are available for MM tube sizes also.

Tube	O.D.	Tube Gauge	Tube I.D.		Cutter	Spare Bit
mm	inch	(BWG)	mm	inch	Model No.	Model No.
		14	11.4 - 11.9	.450470	OTC-625-14	
		15 - 16	12.0 - 12.9	.472510	OTC-625-16	
15.87	5/8"	17 - 18	12.7 - 13.5	.500531	OTC-625-18	OTC-625-SB
		19 - 20	13.5 - 14.2	.531560	OTC-625-20	
		22	14.0 - 14.7	.550580	OTC-625-22	
		14 - 15	14.7 - 15.5	.580610	OTC-750-14	
19.05	3/4	16	15.2 - 16.0	.600630	OTC-750-16	OTC-750-SB
19.05	3/4	17 - 18	15.9 - 16.5	.625650	OTC-750-18	O1C-750-3B
		19 - 20	16.7 - 17.5	.660690	OTC-750-20	
		14 - 15	17.8 - 18.5	.700730	OTC-875-14	
22.22	7/8	16 - 17	18.8 - 19.5	.740770	OTC-875-16	OTC 075 CD
22.22	//0	18	19.3 - 20.0	.760790	OTC-875-18	OTC-875-SB
		19 - 20	19.8 - 20.6	.780810	OTC-875-20	
		14	20.8 - 21.6	.820850	OTC-1000-14	
	25.40 1"	15	21.3 - 22.1	.840870	OTC-1000-15	
25.40		16 - 17	22.8 - 22.6	.860890	OTC-1000-16	OTC-1000-SB
		18 - 20	22.6 - 23.1	.890910	OTC-1000-18	
		22	23.9 - 24.6	.940970	OTC-1000-22	
		12	25.9 - 26.7	1.020 - 1.050	OTC-1250-12	
31.75	1.1/4	13 - 14	26.7 - 27.4	1.050 - 1.080	OTC-1250-14	OTC-1250-SB
31./5	1.1/4	15 - 16	27.9 - 28.7	1.100 - 1.130	OTC-1250-16	010-1250-SB
		17 - 19	28.7 - 29.6	1.130 - 1.160	OTC-1250-18	
		12 - 13	32.5 - 33.3	1.280 - 1.310	OTC-1500-12	
38.10	1.1/2	14 - 15	33.8 - 34.5	1.330 - 1.360	OTC-1500-14	OTC-1500-SB
30.10	1.1/2	16 - 17	34.5 - 35.3	1.360 - 1.390	OTC-1500-16	O1C-1500-SB
		18 - 19	35.3 - 36.1	1.390 - 1.420	OTC-1500-18	
		12 - 13	45.0 - 46.0	1.770 - 1.810	OTC-2000-12	
50.80	2	14 - 15	46.2 - 47.2	1.820 - 1.860	OTC-2000-14	OTC-2000-SB
00.00	2	16 - 17	47.2 - 48.2	1.860 - 1.900	OTC-2000-16	U10-2000-3B
		18 - 19	48.0 - 49.0	1.890 - 1.930	OTC-2000-18	
		12 - 13	57.6 - 58.6	2.270 - 2.310	OTC-2500-12	
CO EO	2.1/2	14 - 15	58.9 - 60.0	2.320 - 2.360	OTC-2500-14	OTC-2500-SB
63.50	2.1/2	16 - 17	60.0 - 61.0	2.360 - 2.400	OTC-2500-16	010-2000-SB
		18 - 19	60.7 - 61.7	2.390 - 2.430	OTC-2500-18	



MANUAL TUBE PULLER



FEATURES:

- No power needed: Manual insertion and removal of tube with a hand wrench. Ideal for field service applications.
- Simple Design : Only two major parts reduce inventory.
- 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 markings: Both spear and thrust collar are clearly
 marked for fast relating tool to job.

	Tube Size								
0.	D.	BWG	Wall Th	ickness	I.	D.	Tube Puller Model Number	Spare Spear Model Number	
mm	inch	BWG	mm	inch	mm	inch			
6.35	1/4	18	1.24	.049	3.86	.152	MTP-25-18	MPS-25-18	
9.52	3/8	16	1.65	.065	6.22	.245	MTP-38-16	MPS-38-16	
9.52	3/8	18	1.24	.049	7.04	.277	MTP-38-18	MPS-38-18	
9.52	3/8	20	0.88	.035	7.75	.305	MTP-38-20	MPS-38-20	
12.70	1/2	14	2.11	.083	8.48	.334	MTP-50-14	MPS-50-14	
12.70	1/2	16	1.65	.065	9.40	.370	MTP-50-16	MPS-50-16	
12.70	1/2	18	1.24	.049	10.21	.402	MTP-50-18	MPS-50-18	
12.70	1/2	20	0.88	.035	10.92	.430	MTP-50-20	MPS-50-20	
15.88	5/8	14	2.10	.083	11.66	.459	MTP-63-14	MPS-63-14	
15.88	5/8	16	1.65	.065	12.57	.495	MTP-63-16	MPS-63-16	
15.88	5/8	18	1.24	.049	13.39	.527	MTP-63-18	MPS-63-18	
15.88	5/8	20	0.88	.035	14.10	.555	MTP-63-20	MPS-63-20	
19.05	3/4	14	2.10	.083	14.86	.585	MTP-75-14	MPS-75-14	
19.05	3/4	16	1.65	.065	15.75	.620	MTP-75-16	MPS-75-16	
19.05	3/4	18	1.24	.049	16.56	.652	MTP-75-18	MPS-75-18	
19.05	3/4	20	0.88	.035	17.27	.680	MTP-75-20	MPS-75-20	
22.22	7/8	14	2.10	.083	18.01	.709	MTP-87-14	MPS-87-14	
22.22	7/8	16	1.65	.065	18.92	.745	MTP-87-16	MPS-87-16	
22.22	7/8	18	1.24	.049	19.74	.777	MTP-87-18	MPS-87-18	
22.22	7/8	20	0.88	.035	20.45	.805	MTP-87-20	MPS-87-20	
25.40	1	14	2.10	.083	21.18	.834	MTP-100-14	MPS-100-14	
25.40	1	16	1.65	.065	22.10	.870	MTP-100-16	MPS-100-16	
25.40	1	18	1.24	.049	22.91	.902	MTP-100-18	MPS-100-18	
25.40	1	20	0.88	.035	23.62	.930	MTP-100-20	MPS-100-20	

Note: For larger/other sizes, please enquire.



TUBE PLUGS







ONE PIECE

TWO PIECE

• Tube plugs are designed for sealing off leaking or damaged tubes in heat exchangers, condensers, boilers etc. It ensures a uniform joint without damaging the tube sheet.

Tube O.D.		One Piece Tube Plug	Two Piece Tube Plug		
mm	inch	Model No.	Model No.		
9.53	3/8	PLG-375-1	-		
12.70	1/2	PLG-500-1	PLG-500-2		
15.87	5/8	PLG-625-1	PLG-625-2		
19.05	3/4	PLG-750-1	PLG-750-2		
22.22	7/8	PLG-875-1	PLG-875-2		
25.40	1	PLG-1000-1	PLG-1000-2		
31.75	1.1/4	PLG-1250-1	PLG-1250-2		
38.10	1.1/2	PLG-1500-1	PLG-1500-2		

Note: Tube plugs are available in a variety of materials like carbon steel, brass, stainless steel, fibre etc. Specify material needed when ordering.

TUBE BUNDLE PULLERS



Tube Bundle Extractor specially designed to remove the tube bundle from the tube sheet without damage to shell of heat exchangers. Tube Bundle Extractor is equipped with a two cylinder air-cooled Hatz-Silent-Pack diesel motor, type 2L30 with 24 V electric starter as standard. The power output is 20 kw at 3000 rpm continuous operation. The exhaust pipe is fitted with a spark arrestor. Additional device to bring the bundle on the equipment in a state of equilibrium (balance stroke 1650 - 3000 mm). Continuously pulling winches incl. 30 horsepower gasoline engine (pulling speed appr. 6 m/min - 12 m/min). Head prism movable up and down for taking up and holding of the bundle flange. All functions hydraulically operated by remote control 24 volts.

FEATURES:

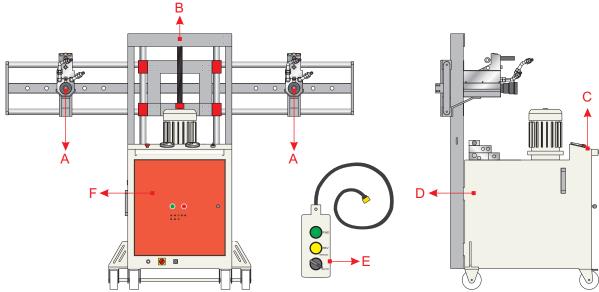
- Shorter length in comparison to similar equipment.
- Less width for penetrating into the plant.
- Less Height.
- Faster working due to the head prism movable up and down and the continuously working 30 tons winch.
- More safety for operator due to electric remote control system.
- Independent of separate energy sources such as portable air compressor units.
- · Less dead weight.

TECHNICAL DATA:

Model Number	15 to	30 to	45 to	100 to				
Length of Equipment (m)	7,30	7,5 - 8,5	11,00	13,50				
Width of the main frame (mm)	1000	1200 1200		1800				
Width of the loops (m)	1,70	2,15	2,65	3,20				
Height of the main frame (mm)	250	350	350	500				
Dead Weight ~ (kg)	4500	8000 10000		18000				
Constructed for bundles of :								
Max. Length (m)	~ 6,30	~ 8,00	~ 10,00	~ 12,00				
Max. Diameter (m)	~ 1,60	~ 2,00	~ 2,40	~ 3,00				
Max. Bundle Weight (kg)	~ 15000	~ 30000	~ 45000	~ 100000				

TUBE BUNDLE INSERTER





- A Fully Automatic Hydraulic Pistons
- B Biaxial positioning frame with horizontal. Vertical movement.
- C Control Panel
- D Hydraulic Powerpack
- E Remote Control
- F Electrical Cabinet

Features:

- Used for insertion of long and heavy tube bundles inside the shell of heat exchangers.
- Inserts tube bundle at rate of 3mtrs/min.
- Generates a coaxial force of 60 tons to insert tube bundle into the shell without any jolts thereby avoiding damages to shell and tube bundles.
- Can be easily converted into double headed tube puller for tube extraction.

TECHNICAL SPECIFICATIONS

Model	Pulling Force	Insertion Speed	Maximum Pressure	Power	Volts/phase	Tank Capacity	Weight
	Tons	m/min	Bar	Kw		Liter	Kg
TBI	60	3	300	8	380-50Hz/3	150	800

Pedigree

35+ years experience

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ISO 9001 since 1996

Performance guaranteed



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