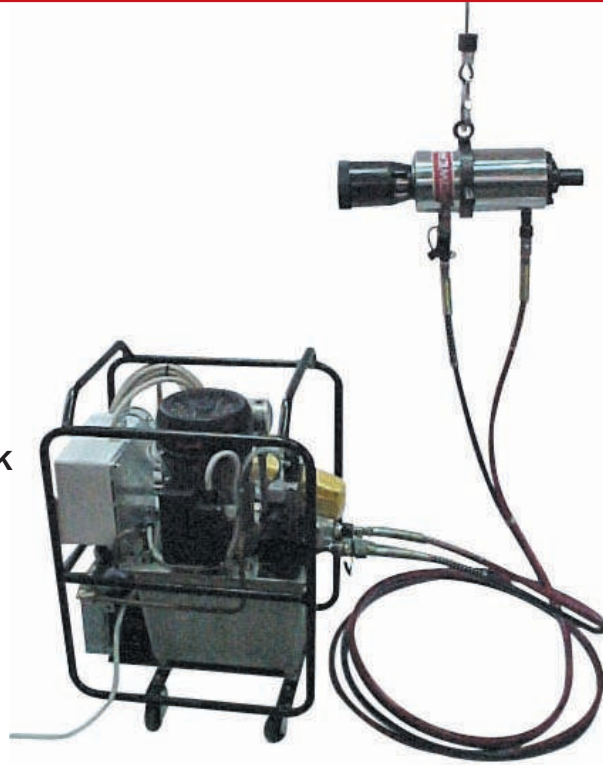


MASTER TUGGER HYDRAULIC TUBE PULLER

$\frac{3}{8}$ "-4"
O.D.

POWERPACK

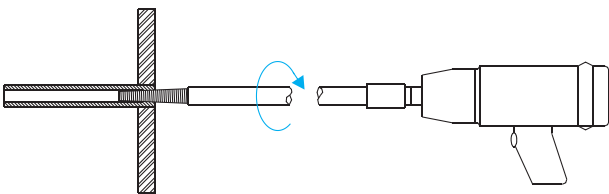
PULLING GUN



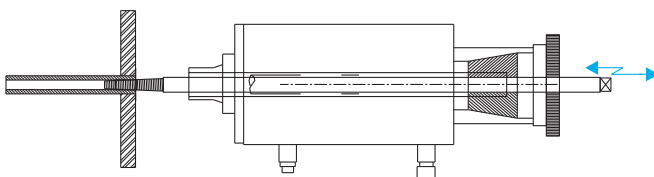
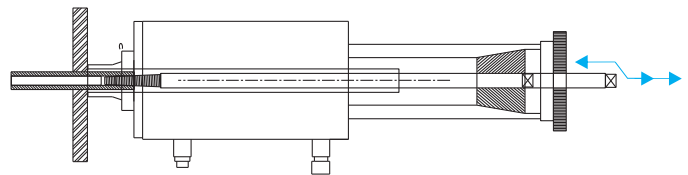
Features :

- 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.

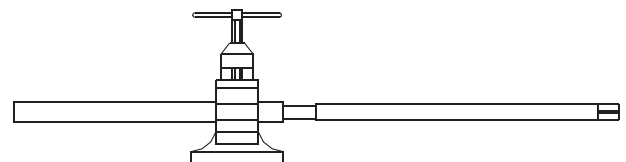
SEQUENCE OF OPERATION



A) Thread mandrel into tube with Impact Wrench.



B) Mount Pulling Gun onto mandrel.



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

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.

3/8"-4"
O.D.

MASTER TUGGER HYDRAULIC TUBE PULLER



STPP 300 (Electric) Pump

TUBE PULLING POWERPACK - SPECIFICATIONS



Model	Volts/ Phase	Power hp	Oil Tank Capacity ltrs.	Net Wt. kgs.	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.

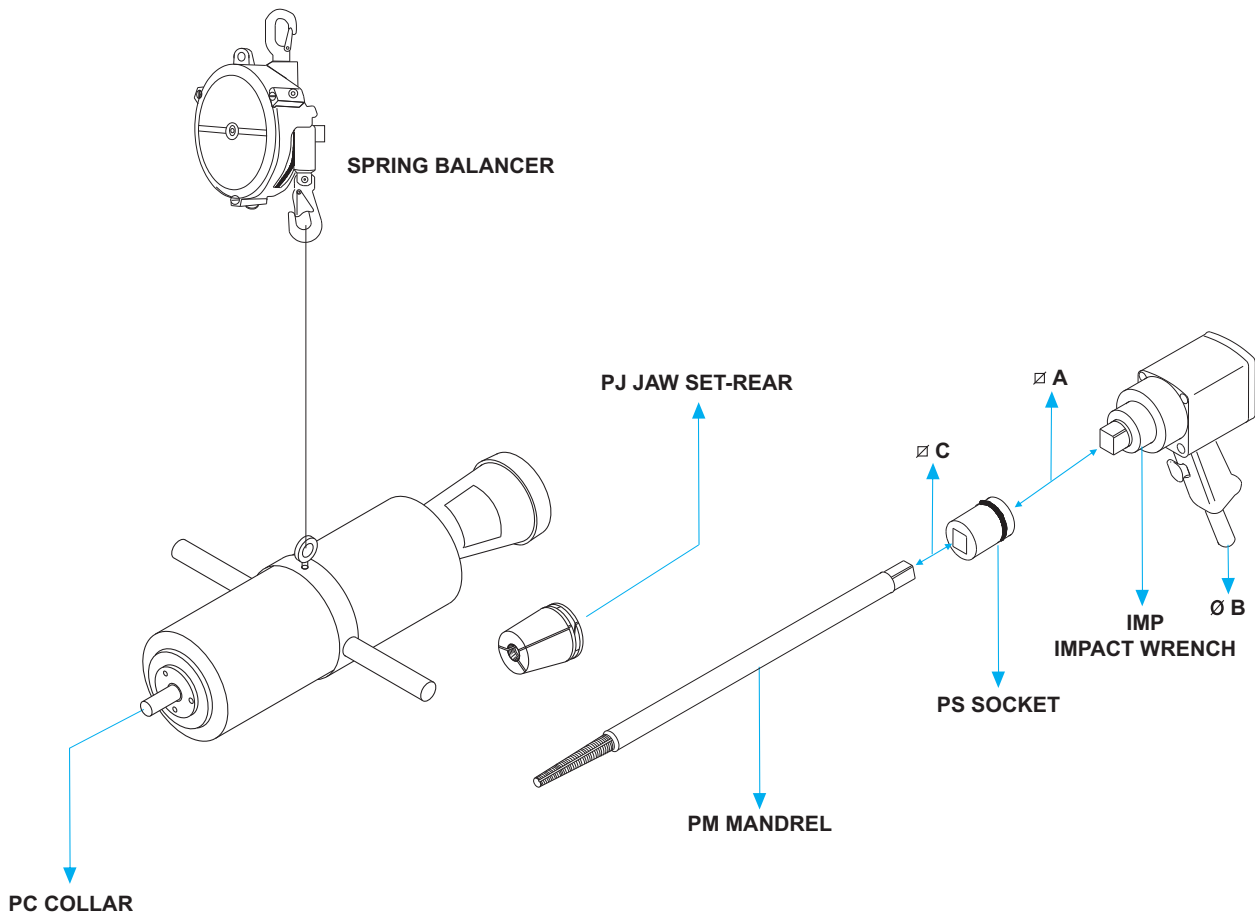


HYDRAULIC TUBE PULLING GUNS - SPECIFICATIONS



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
				kgs.	lbs.	
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	Balancer Range		For Pulling Gun Model	Weight	
	kg	lbs		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.

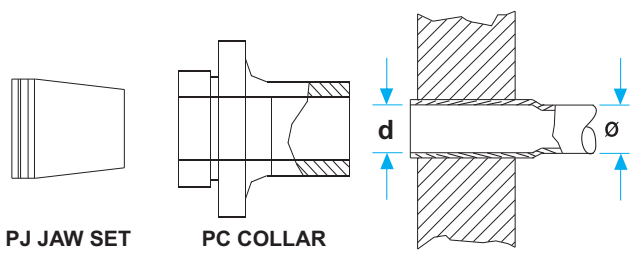
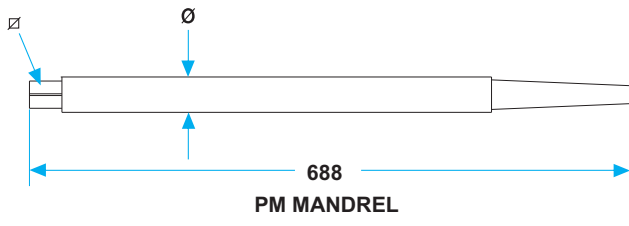
Model	Suited For Mandrel Model Numbers	Weight		Ø A	Ø B
		kg	lbs		
IMP - 1	PM-7 to PM-37	5.0	11.0	3/4"	3/8"
IMP - 2	PM-19 to PM-95/102	10.5	23.0	1"	1/2"

PS - SOCKET

- Used to connect impact wrench to pulling mandrel.

Model	Ø 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"

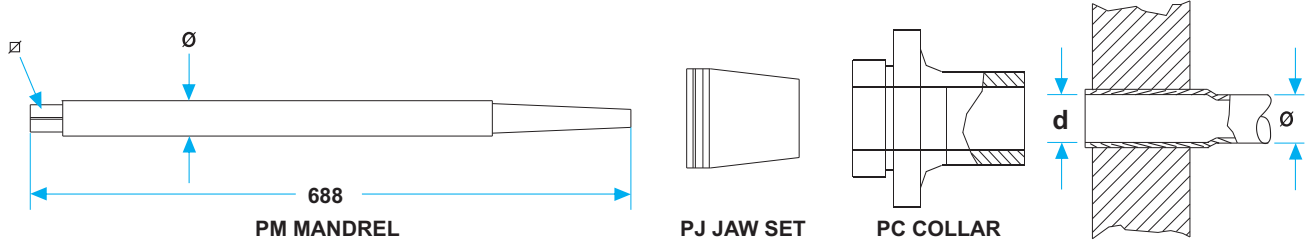
WORKING CONSUMABLES - MASTER TUGGER HYDRAULIC TUBE PULLER



Tube Size		Tube I.D. after Expansion d		Mandrel		Jaw Set			Collar		
∅	bwg	mm	inch	Model	Square Size	Model For SHPG-15	Model For SHPG-30	Model For SHPG-45	Model For SHPG-15	Model For SHPG-30	Model For SHPG-45
				PM	∅	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	5/16"	1	1		11	11	
	20-24	7.5-8.5	0.295-0.335	8							
1/2"	14-16	8.5-9.5	0.335-0.375	9	3/8"	2	2		15	15	
	17-18	9.5-10.5	0.375-0.415	10							
	19-21	10.5-11.5	0.415-0.455	11							
	24	11.5-12.5	0.455-0.495	12							
5/8"	16-17	12.5-13.5	0.495-0.535	13 A	1/2"	3	3		18	18	
	19-21	13.5-14.5	0.535-0.570	14 A							
	23-24	14.5-15.5	0.570-0.610	15 A							
3/4"	11	12.5-13.5	0.495-0.535	13	5/8"	4	4		21	21	
	12-13	13.5-14.5	0.535-0.570	14							
	14-15	14.5-15.5	0.570-0.610	15							
	16-17	15.5-16.5	0.610-0.650	16							
	18-20	16.5-17.5	0.650-0.690	17							
7/8"	14	17.5-18.5	0.690-0.730	18 S	5/8"	4/A	4/A		25	25	
	16-17	18.5-19.5	0.730-0.770	19 S							
	18-19	19.5-20.5	0.770-0.810	20 S							
1"	10-11	18.5-19.5	0.730-0.770	19	3/4"	5	5	5	28	28	28
	12	19.5-20.5	0.770-0.810	20							
	13-14	20.5-21.5	0.810-0.845	21							
	15-16	21.5-22.5	0.845-0.885	22							
	18	22.5-23.5	0.885-0.925	23							
3/4" Gas	13	21.5-22.5	0.845-0.886	22 G							
	14-15	22.5-23.5	0.886-0.925	23 G							
	16-17	23.5-24.5	0.925-0.965	24 G							
	19-21	24.5-25.5	0.965-1.005	25 G							
1.1/4"	10	24.5-25.5	0.965-1.005	25	1"						
	11-12	25.5-26.5	1.005-1.045	26							
	13	26.5-27.5	1.045-1.085	27							
	14-15	27.5-28.5	1.085-1.125	28							
	16-18	28.5-29.5	1.125-1.160	29							
	19-22	29.5-30.5	1.160-1.200	30							
1" Gas	9	25.5-26.5	1.005-1.045	26 G							
	10	26.5-27.5	1.045-1.085	27 G							
	11-12	27.5-28.5	1.085-1.125	28 G							
	13-14	28.5-29.5	1.125-1.160	29 G							
1.1/2"	10-11	31.5-32.5	1.240-1.280	32							
	12-13	32.5-33.5	1.280-1.320	33							
	14	33.5-34.5	1.320-1.360	34							
	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



Tube Size		Tube I.D. after Expansion D		Mandrel		Jaw Set			Collar			
OD / Ø	bwg	mm	inch	Model	Square Size	Model For SHPG-15	Model For SHPG-30	Model For SHPG-45	Model For SHPG-15	Model For SHPG-30	Model For SHPG-45	
				PM	∅	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	1"			10		44	44	
	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								
1.3/4"	10-11	37.5-38.5	1.475-1.515	38/44								
	12	38.5-39.5	1.515-1.555	39/44								
	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								
1.1/2" Gas	20-24	42.5-43.5	1.675-1.715	43/44								
	11-12	42.5-43.5	1.715-1.755	43G					11			48
	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									
2"	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"	9-10	49.5-50.5	1.950-1.990	50/57	1.1/2"			13			54	
	11	50.5-51.5	1.990-2.030	51/57								
2" Gas	12-13	51.5-52.5	2.030-2.070	52/57								
	7	50.5-51.5	1.990-2.030	51G				14			60	
	8	51.5-52.5	2.030-2.070	52G								
9	53.5-53.5	2.070-2.105	53G									
2.1/2"	7	53.5-54.5	2.015-2.145	54/63								
	8	54.5-55.5	2.145-2.185	55/63								
	9	55.5-56.5	2.185-2.225	56/63								
3"	10	56.5-57.5	2.225-2.265	57/63								
	7	66.5-67.5	2.580-2.620	67/76			15			66		
	8	67.5-68.5	2.620-2.660	68/76								
	9-10	68.5-69.5	2.660-2.695	69/76								
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 tigger hydraulic tube pulling. When you are using equipment for stub pulling, please contact us for modifications needed.