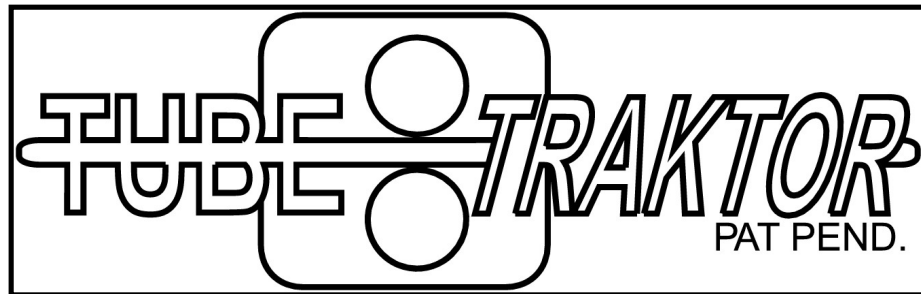




BM TUBE PULLING SYSTEMS



WA DESIGNED SOLUTIONS

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BITE-ME COLLET PULLERS



The BP-1000 series of collet type pullers from Winema are designed with the latest technology to quickly and efficiently remove tubes and stubs from heat exchangers, condensers, chillers and other tubular pressure vessels.

These light weight double acting or single acting air return pullers offer an excellent power to weight ratio. With the ability to develop 9 tons of pulling force & standard stroke lengths of 75 & 150mm as standard, they are also very compact. The BP Collet Puller pulls tubes from 15.8 mm O.D. to 25.4mm O.D. from the tube sheet thickness up to 50.8mm.

Features

- Compact and lightweight design
- Rapid cylinder stroke for unmatched productivity and seamless operation
- Floating collet design for extended tool life
- Adjustable nose piece
- Detachable single or double actuation control handle
- Ergonomically designed for ease of use
- Can be used with standard high pressure (10,000psi) hydraulic pumps

Specifications

Stroke	Standard:	75 & 150mm
	Optional:	225mm
Pulling Force	Standard:	9 metric tons
Length	Double Acting:	415mm O/A
	Gas Return:	465mm O/A
Weight	Double Acting:	7.95kg
	Gas Return:	8.40kg
Capacity	Tube	15.8mm to 25.4mm Tube OD
	Tube Sheet	up to 50.8 mm

Options

Electrically powered hydraulic power pack
 Pneumatically operated hydraulic power pack
 Optional stroke sizes of 75mm and 225mm available

Consumables



TUBE O.D.	TUBE GAGE	GRIPPER SET	MIN ENTER DIM AFTER EXP.	MAX ENTER DIM AFTER EXP.	DRAW MANDREL	NOSE PIECE
5/8	16-17	BP-1000-17-056-16	12,85 mm (0,506")	13,85 mm (0,545")	BP-1000-16-058	BP-1000-14-058
	18-19	BP-1000-17-056-18	13,60 mm (0,535")	14,60 mm (0,574")		
	20-21	BP-1000-17-056-20	14,30 mm (0,562")	15,30 mm (0,602")		
	22-23	BP-1000-17-056-22	14,60 mm (0,576")	15,65 mm (0,616")		
3/4	16-17	BP-1000-17-075-16	16,05 mm (0,631")	17,05 mm (0,671")	BP-1000-16-075	BP-1000-14-075
	18-19	BP-1000-17-075-18	16,90 mm (0,665")	17,90 mm (0,704")		
	20-21	BP-1000-17-075-20	17,60 mm (0,692")	18,60 mm (0,732")		
	22-23	BP-1000-17-075-22	17,95 mm (0,706")	18,95 mm (0,746")		
7/8	16-17	BP-1000-17-087-16	19,20 mm (0,755")	20,20 mm (0,795")	BP-1000-16-087	BP-1000-14-087
	18-19	BP-1000-17-087-18	20,00 mm (0,787")	21,00 mm (0,826")		
	20-21	BP-1000-17-087-20	20,70 mm (0,815")	21,70 mm (0,854")		
	22-23	BP-1000-17-087-22	21,05 mm (0,828")	22,05 mm (0,868")		
1	16-17	BP-1000-17-100-16	22,40 mm (0,881")	23,40 mm (0,921")	BP-1000-16-100	BP-1000-14-100
	18-19	BP-1000-17-100-18	23,20 mm (0,913")	24,20 mm (0,952")		
	20-21	BP-1000-17-100-20	23,90 mm (0,941")	24,90 mm (0,980")		
	22-23	BP-1000-17-100-22	24,70 mm (0,972")	25,70 mm (1,011")		



BITE-ME HIGH SPEED TUBE TRAKTOR



The Tube Traktor represents the latest evolution in high speed tube extracting equipment. When used in conjunction with our high speed Collet Pullers on non ferrous or thin wall ferrous tubes the Tube Traktor takes the effort out of condenser tube pulling. This compact powerful machine will enable the operator to extract and flatten tubes from condensers at speeds between 10 and 40 meters per minute once the expansion joint has been broken.

Features

- ❖ Solid 1 piece Pulling Rolls machined from tool steel and hardened for extended life.
- ❖ Body components machined from aircraft grade aluminium for high strength and anodised for corrosion resistance.
- ❖ Steel nose piece and bearing caps for corrosion resistance
- ❖ Fully sealed bearings for hour's of trouble free operation, no greasing required.
- ❖ Built in lifting eye and handle.
- ❖ Flattens tube for easy scrap handling
- ❖ Roll tension and spacing fully adjustable for different tube materials and sizes.
- ❖ Ferrous tube options available

Specifications

Pulling Speed:	Up to 70mtrs per minute depending on pump.
Construction:	Aircraft grade aluminium, tool steel and powder coated steel.
Weight:	Approx 50kg
Size overall:	160mm deep 220mm wide 350 mm high (excludes exit tube)
Tube capacity:	15.8 mm to 38.1 mm" OD,
Standard Configuration:	1" non ferrous tubes

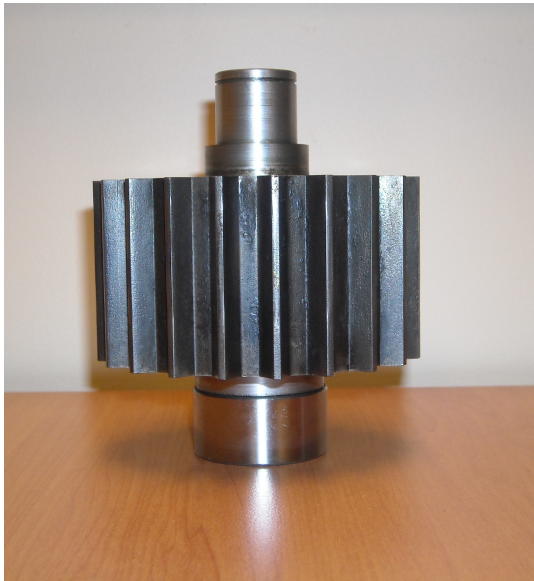
Inclusions

Tube Traktor is supplied with,
Heavy duty transport locker
Hand tools for normal operation
User manual

Options

Optional shaped rolls are available for heavy wall ferrous applications.

<u>Tube</u>	<u>Gage</u>	<u>Nose Piece</u>	<u>Rolls</u>	<u>Gage</u>	<u>Nose Piece</u>	<u>Rolls</u>
5/8	16-23	TT-010-0625	TT-006-01	8-15	SJN-NP-0625	TT-048-0625
3/4	16-23	TT-010-0750	TT-006-01	8-15	SJN-NP-0750	TT-048-0750
7/8	16-23	TT-010-0875	TT-006-01	8-15	SJN-NP-0875	TT-048-0875
1	16-23	TT-010-1000	TT-006-01	8-15	SJN-NP-1000	TT-048-1000
1 1/4	16-23	TT-010-1250	TT-006-01	8-15	SJN-NP-1250	TT-048-1250
1 1/2	16-23	TT-010-1500	TT-006-01	8-15	SJN-NP-1500	TT-048-1500



Standard Electri Hydraulic Power Unit

Weight	562 lbs	250 Kg
Size	36 x 36 x 60 inch	1000 x 1000 x 1500mm
Capacity	76 US Gal	200 Ltr
Maximum Operating Pressure	2250 PSI	155 Bar
Maximum Flow	16.6 GPM/US	65 LPM
Rated Output	20 HP	15Kw
Voltage	415 Volt	
Current	32 Amps	
Forward & reverse flow control		
8-mtr main hoses c/w QD fittings, 2 mtr whip hoses c/w QD fittings		
6-mtr mains cable		
On/Off, 24 volt electric with phase rotation switch		
Pump is shipped without hydraulic oil		

RP-1000-02 AUTOMATIC PULLER



SPECIFICATIONS

Power Pack

Part No.	Motor	Power	Power	Hyd Pressure	Hyd Flow	Tank Capacity	Weight
RP-012	ABB	7.5kW (10HP)	415V 50Hz 20 Amps	MAXIMUM 300Bar	MAXIMUM 80Lpm	150L *	250Kg

Pulling Gun

Part No.	Pulling Force	Min Tube OD	Max Tube OD	Free Pull Speed	Stroke	Weight
RG-005	15 tons	½" (12.5mm)	1" (25.0mm)	6m/min	5" (125mm)	26Kg
RG-010	30 tons	½" (12.5mm)	1 ½" (38.0mm)	4 m/min	6" (150mm)	52Kg
RG-015	45 tons	1 ½" (38.0mm)	3" (76mm)}	2m/min	3" (75mm)	67Kg

CONSUMABLES

Mandrel sized to suit your tube OD must also be sized to suit the tube wall thickness.
Jaws (Rear and Front) sized to suit the outside diameter of the tube you are planning to pull.
Collar sized to suit the outside diameter of the tube you are planning to pull.

Tube Pulling Consumables Suitable for the 15 & 30 Ton Gun Options

Consumables to Suit 12.7mm / 1/2" OD			
Collar	SJN-NP-0500	ID Size Range	
Pull Jaw 15 Ton	K-3021		
Hold Jaw 15 Ton	K-3022		
Pull Jaw 30 Ton	K-3020		
Hold Jaw 30 Ton	K-3022		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6000	5.50mm	8.10mm
To Suit 13 – 16 g	K-6001	7.60mm	10.20mm
To Suit 18 – 24 g	K-6002	10.10mm	11.60mm
Consumables to Suit 15.88mm / 5/8" OD			
Collar	SJN-NP-0625	ID Size Range	
Pull Jaw 15 Ton	K-3031		
Hold Jaw 15 Ton	K-3032		
Pull Jaw 30 Ton	K-3030		
Hold Jaw 30 Ton	K-3032		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6010	8.50mm	11.00mm
To Suit 13 – 16 g	K-6011	11.00mm	13.60mm
To Suit 18 – 24 g	K-6012	13.05mm	15.65mm
Consumables to Suit 19.05mm / 3/4" OD			
Collar	SJN-NP-0750	ID Size Range	
Pull Jaw 15 Ton	K-3041		
Hold Jaw 15 Ton	K-3042		
Pull Jaw 30 Ton	K-3040		
Hold Jaw 30 Ton	K-3042		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6020	12.20mm	14.80 mm
To Suit 13 – 16 g	K-6021	14.10 mm	16.70 mm
To Suit 18 – 24 g	K-6022	16.25 mm	18.85 mm
Consumables to Suit 22.23mm / 7/8" OD			
Collar	SJN-NP-0875	ID Size Range	
Pull Jaw 15 Ton	K-3046		
Hold Jaw 15 Ton	K-3047		
Pull Jaw 30 Ton	K-3045		
Hold Jaw 30 Ton	K-3047		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6030	15.35 mm	17.95 mm
To Suit 13 – 16 g	K-6031	17.35 mm	19.95 mm
To Suit 18 – 24 g	K-6032	19.50 mm	22.10 mm
Consumables to Suit 25.4mm / 1" OD			
Collar	SJN-NP-1000	ID Size Range	
Pull Jaw 15 Ton	K-3051		
Hold Jaw 15 Ton	K-3052		
Pull Jaw 30 Ton	K-3050		
Hold Jaw 30 Ton	K-3052		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6040	18.50 mm	21.10 mm
To Suit 13 – 16 g	K-6041	20.50 mm	23.10 mm
To Suit 18 – 24 g	K-6042	22.60 mm	25.20 mm

Tube Pulling Consumables Suitable for the 30 Ton Gun Option

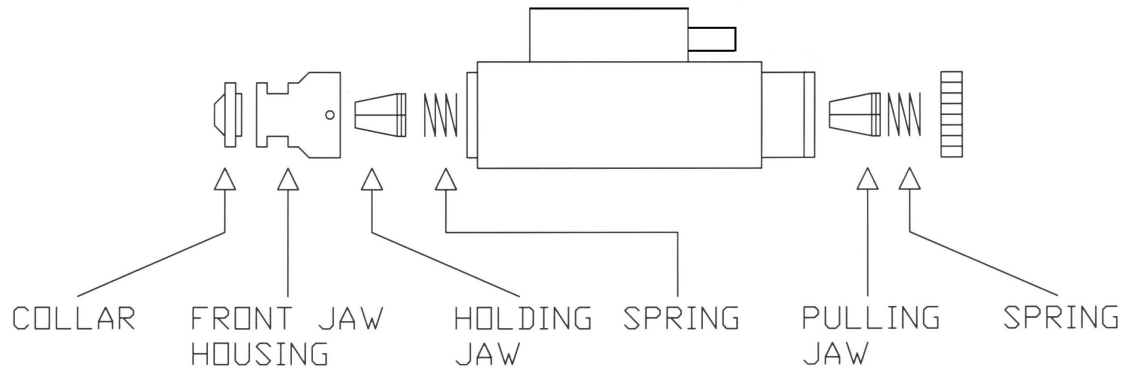
Consumables to Suit 28.58mm / 1 1/8" OD			
Collar	SJN-NP-1125	ID Size Range	
Pull Jaw	K-3060		
Hold Jaw	K-3062		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6050	21.80 mm	24.40 mm
To Suit 13 – 16 g	K-6051	23.80 mm	26.40 mm
To Suit 18 – 24 g	K-6052	25.80 mm	28.40 mm
Consumables to Suit 31.75mm / 1 1/4" OD			
Collar	SJN-NP-1250	ID Size Range	
Pull Jaw	K-3070		
Hold Jaw	K-3072		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6060	24.90 mm	27.50 mm
To Suit 13 – 16 g	K-6061	26.90 mm	29.50 mm
To Suit 18 – 24 g	K-6062	28.95 mm	31.55 mm
Consumables to Suit 38.1 / 1 1/2" OD			
Collar	SJN-NP-1500	ID Size Range	
Pull Jaw	K-3090		
Hold Jaw	K-3092		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6070	31.30 mm	33.90 mm
To Suit 13 – 16 g	K-6071	33.30 mm	35.90 mm
To Suit 18 – 24 g	K-6072	35.30 mm	37.90 mm

Tube Pulling Consumables Suitable for the 45Ton Gun

Consumables to Suit 38.10mm / 1 1/2" OD			
Collar	SJN-NP-3212	ID Size Range	
Pull Jaw	K-3210		
Hold Jaw	K-3211		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6070	31.30 mm	33.90 mm
To Suit 13 – 16 g	K-6071	33.30 mm	35.90 mm
To Suit 18 – 24 g	K-6072	35.30 mm	37.90 mm
Consumables to Suit 44.45mm / 1 3/4" OD			
Collar	SJN-NP-3217	ID Size Range	
Pull Jaw	K-3215		
Hold Jaw	K-3216		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6080	37.70 mm	40.30 mm
To Suit 13 – 16 g	K-6081	39.70 mm	42.30 mm
To Suit 18 – 24 g	K-6082	41.70 mm	44.30 mm
Consumables to Suit 50.80mm / 2" OD			
Collar	SJN-NP-3222	ID Size Range	
Pull Jaw	K-3220		
Hold Jaw	K-3221		
Mandrel Options		From	To
To Suit 10 – 12 g	K-6090	44.10 mm	46.70 mm
To Suit 13 – 16 g	K-6091	46.10 mm	48.70 mm
To Suit 18 – 24 g	K-6092	48.10 mm	50.70 mm

Basic Operation

The Collar is fitted into the nose of the pulling gun, and is locked in position with a grub screw on the nose of the gun.



The Pulling Jaws are installed in the Rear Jaw Housing at the rear of the Pulling Gun.

The Front Holding Jaws are installed in the Front Jaw Housing

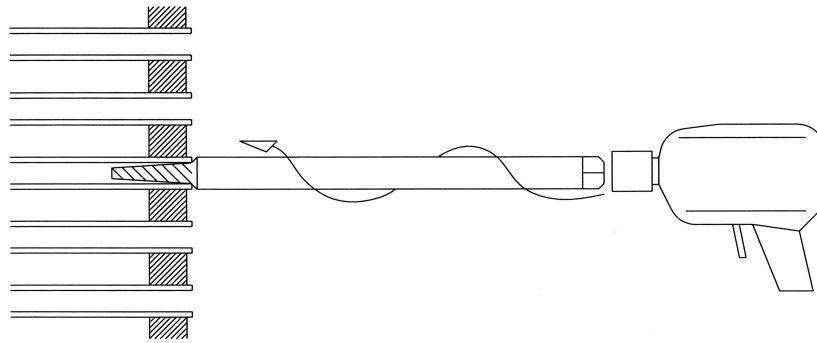
With the correct sized consumables selected tube pulling can now be carried out.



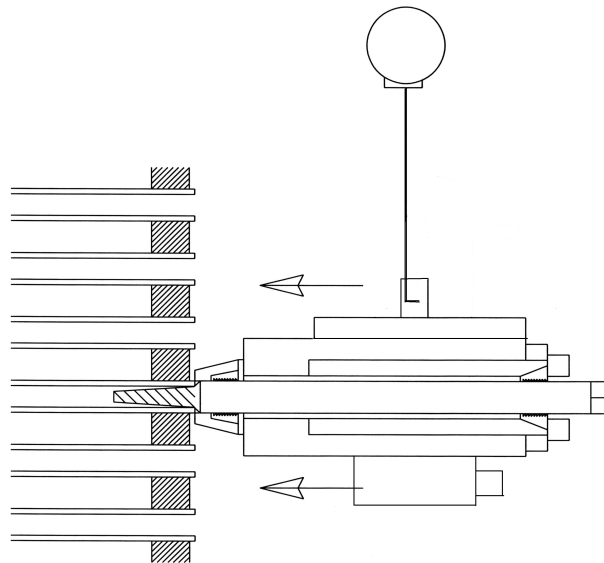
Pulling Gun & Pump Control Buttons

With the power pack activated, rotate the selector switch to MANUAL then JOG the FWD BUTTON to start the initial pull. When the Gun has pulled to the end of the stroke, press the REVERSE BUTTON until the gun fully returns.

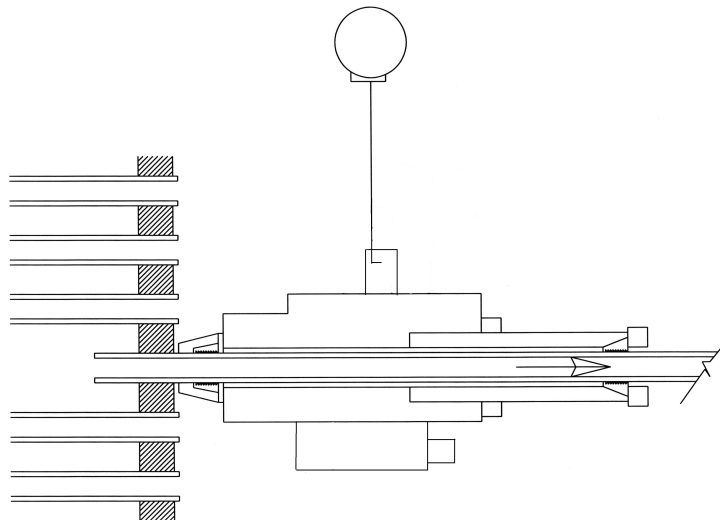
The puller is designed to give maximum pulling force at a slower speed to prevent jerking and breaking the tube. Once the expansions have been broken the pull speed will automatically increase to remove the tube quickly.



The Mandrel is driven into the tube end with an impact wrench in a clock wise direction.



Once the Mandrel is installed the Pulling Gun can be mounted.



Cycle cylinder to extract tubes.



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