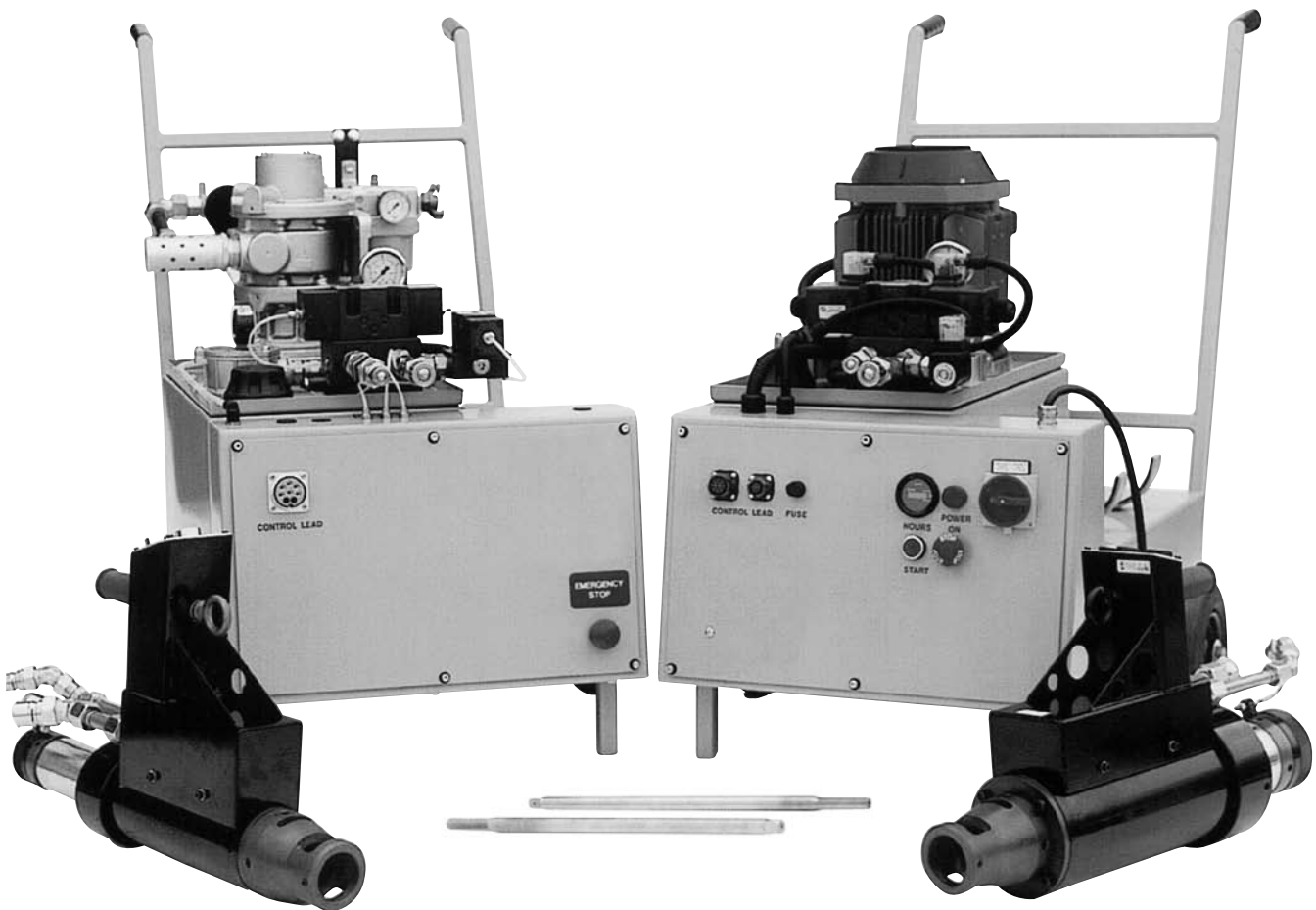


AUTOMATIC & CONTINUOUS TUBE PULLING

This semi or fully automatic TUBE PULLER will run tubes out of heat exchangers and condensers without the need to cut the tube prior to pulling.



FEATURES

- Continuous pull capacity up to 3" O.D.
- Easy to set up and use.
- High power and high speed automatic cycling.
- Proven mandrel and pulling jaw system.
- Electric or pneumatic versions available.
- 'Slow-start' to minimise the risk of tube breakage.
- Standard electric, hydraulic and pneumatic components.
- 24 volt operator controls for added safety.
- Interchangeable pulling guns.

Complete catalogue available on request.

15 Ton Gun

For light duty, high speed work on tubes of diameter 3/8" to 1" O.D. e.g. condenser work.
Free pulling speed : 4.5 m/min. (15 ft/min.)

30 Ton Gun

For all tube sizes from 3/8" to 1 1/2" O.D. continuously through the gun and to 3" O.D. stub pulling.
Free pulling speed : 3 m/min. (10 ft/min.)

45 Ton Gun

For all tube sizes up to 3" O.D. continuously through the gun and stub pulling applications on boilers and steam drums.

UNIVERSAL HYDRAULIC PUMPS



Model no.: **TZE-5420-SPR**

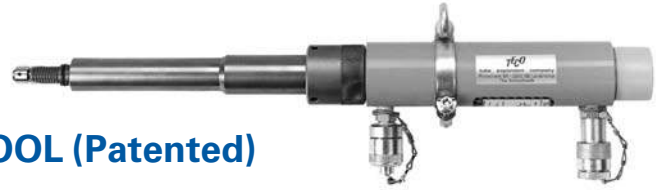
- Electro Hydraulic Pump:
2.2 kW 220 Volt - 3 Ph -50/60 Hz.
2.2 kW 400 Volt - 3 Ph -50/60 Hz.
- Two-Stage pump flow capacity:
11.27 Ltr./min. at 0-50 bar.
1.64 Ltr./min. at 50-700 bar.
- Oil tank capacity: 20 litre.
- Electric Solenoid 4/3-way valve: 24 Volt A.C.
- Remote control: Hand, Foot switch is optional.
- Frame size: L 75 cm x W 64 cm x H 78 cm,
L 30" x W 26" x H 31",
provided with ball bearing type swivel wheels
and brakes.
- Glycerine filled pressure gauge scale 0-700 bar.
- Complete with set of hydraulic hoses, 6 metres
(20 feet) long, with High-Flow quick couplings.
- Weight complete: 85 kg.

Other models and power supplies are available on request.

Model no.: **TZA-4420-SPR**

- Air-Driven Hydraulic Pump 2.2 kW Air-motor.
- Air consumption: 2400 Ltr./min.
- Air pressure: 6 bar (84 Psi).
- Two-Stage pump flow capacity:
11.1 Ltr./min. at 0-50 bar.
1.31 Ltr./min. at 50-700 bar.
- Oil tank capacity: 20 litre.
- Pneumatic operated 4/3-way valve.
- Remote control: Foot switch.
- Frame size: L 75 cm x W 64 cm x H 78 cm,
L 30" x W 26" x H 31",
provided with ball bearing type swivel wheels
and brakes.
- Glycerine filled pressure gauge scale 0-700 bar.
- Complete with set of hydraulic hoses, 6 metres
(20 feet) long, with High-Flow quick couplings.
- Weight complete: 70 kg.

HYDRAULIC OPERATED GRIPPER TYPE TUBE PULLER

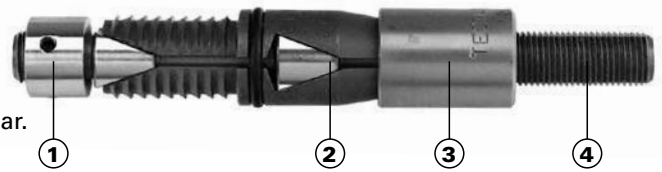


VERY FAST - EASY TO USE - LIGHT TOOL (Patented)

When re-tubing condenser and other similar types of unit containing non-ferrous tubes this specially developed Hydraulic Gripper Tube Puller removes tubes or tube stubs without damaging the tube sheet holes. This unit can pull up to 4 to 6 tubes per minute. The hydraulic ram has a single cycle stroke of 6 inch and a pulling power of 7 or 11 tons. The hydraulic pump operates at a pressure of 700 Bar and has High-Flow quick couplings.

THE HYDRAULIC GRIPPER TUBE PULLER CONSISTS OF

- Gripper tube puller unit (Patented) containing:
 1. Stop nut.
 2. Replaceable Gripper shells.
 3. Bushing.
 4. Puller mandrel.
- Hydraulic Ram either: 7 or 11 tons pulling power with collar.
- Hydraulic Pump (electric or pneumatic) see page 45.
- Hand or Foot-switch, pump will only run when switch is operated.
- Connection hose with High-Flow quick couplings.



Tube Size	Model No.	Grippers set ②	Puller Mandrel ④	Stop-Nut ①	Bushing ③
5/8" O.D.-15 Gauge 16 mm O.D. to 12.22 mm I.D.	CTP – 12 mm	GCTP – 12 mm	MCTP – 12 mm	SCTP-11/32"-24	BCTP-7/16"-20
5/8" O.D.-16-17 Gauge 16 mm O.D. to 12.57-12.92 mm I.D.	CTP – 12.5 mm	GCTP – 12.5 mm	MCTP – 12.5 mm	SCTP-11/32"-24	BCTP-7/16"-20
5/8" O.D.-18-19 Gauge 16 mm O.D. to 13.38-13.74 mm I.D.	CTP – 13 mm	GCTP – 13 mm	MCTP – 13 mm	SCTP-3/8"-24	BCTP-7/16"-20
5/8" O.D.-20-22 Gauge 16 mm O.D. to 14.10-14.45 mm I.D.	CTP – 14 mm	GCTP – 14 mm	MCTP – 14 mm	SCTP-3/8"-24	BCTP-7/16"-20
3/4" O.D.-15-16 Gauge 19.05 mm O.D. to 15.39-15.75 mm I.D.	CTP – 15 mm	GCTP – 15 mm	MCTP – 15 mm	SCTP-7/16"-20	BCTP-7/16"-20
3/4" O.D.-17-19 Gauge 19.05 mm O.D. to 16.10-16.90 mm I.D.	CTP – 16 mm	GCTP – 16 mm	MCTP – 16 mm	SCTP-7/16"-20	BCTP-7/16"-20
3/4" O.D.-20-22 Gauge 19.05 mm O.D. to 17.27-17.63 mm I.D.	CTP – 17 mm	GCTP – 17 mm	MCTP – 17 mm	SCTP-7/16"-20	BCTP-7/16"-20
7/8" O.D.-14-16 Gauge 22.20 mm O.D. to 18.00-18.92 mm I.D.	CTP – 18 mm	GCTP – 18 mm	MCTP – 18 mm	SCTP-7/16"-20	BCTP-7/16"-20
7/8" O.D.-17-18 Gauge 22.20 mm O.D. to 19.28-19.74 mm I.D.	CTP – 19 mm	GCTP – 19 mm	MCTP – 19 mm	SCTP-1/2"-20	BCTP-1/2"-20
7/8 O.D.-19-22 Gauge 22.20 mm O.D. to 20.10-20.80 mm I.D.	CTP – 20 mm	GCTP – 20 mm	MCTP – 20 mm	SCTP-1/2"-20	BCTP-1/2"-20
1" O.D.-14-15 Gauge 25.40 mm O.D. to 21.18-21.74 mm I.D.	CTP – 21 mm	GCTP – 21 mm	MCTP – 21 mm	SCTP-1/2"-20	BCTP-1/2"-20
1" O.D.-16-18 Gauge 25.40 mm O.D. to 22.10-22.91 mm I.D.	CTP – 22 mm	GCTP – 22 mm	MCTP – 22 mm	SCTP-1/2"-20	BCTP-1/2"-20
1" O.D.-19-22 Gauge 25.40 mm O.D. to 23.30-23.97 mm I.D.	CTP – 23 mm	GCTP – 23 mm	MCTP – 23 mm	SCTP-1/2"-20	BCTP-1/2"-20
1 1/8" O.D.-14-15 Gauge 28.50 mm O.D. to 24.35-24.91 mm I.D.	CTP – 24 mm	GCTP – 24 mm	MCTP – 24 mm	SCTP-1/2"-20	BCTP-1/2"-20
1 1/8" O.D.-16-17 Gauge 28.50 mm O.D. to 25.20-25.63 mm I.D.	CTP – 25 mm	GCTP – 25 mm	MCTP – 25 mm	SCTP-1/2"-20	BCTP-1/2"-20
1 1/8" O.D.-18-19 Gauge 28.50 mm O.D. to 26.09-26.44 mm I.D.	CTP – 26 mm	GCTP – 26 mm	MCTP – 26 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 1/4" O.D.-14 Gauge 31.75 mm O.D. to 27.53 mm I.D.	CTP – 27 mm	GCTP – 27 mm	MCTP – 27 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 1/4" O.D.-15-17 Gauge 31.75 mm O.D. to 28.09-28.80 mm I.D.	CTP – 28 mm	GCTP – 28 mm	MCTP – 28 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 1/4" O.D.-18-20 Gauge 31.75 mm O.D. to 29.26-29.97 mm I.D.	CTP – 29 mm	GCTP – 29 mm	MCTP – 29 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 1/4" O.D.-21-22 Gauge 31.75 mm O.D. to 30.12-30.33 mm I.D.	CTP – 30 mm	GCTP – 30 mm	MCTP – 30 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 3/8" O.D.-15 - 16 Gauge 34.93 mm O.D. to 31.27-31.63 mm I.D.	CTP – 31 mm	GCTP – 31 mm	MCTP – 31 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 3/8" O.D.-17 - 19 Gauge 34.93 mm O.D. to 32.0 - 32.8 mm I.D.	CTP – 32 mm	GCTP – 32 mm	MCTP – 32 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 3/8" O.D.-20 - 22 Gauge 34.93 mm O.D. to 33.15-33.51 mm I.D.	CTP – 33 mm	GCTP – 33 mm	MCTP – 33 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 1/2" O.D.-15 - 16 Gauge 38.1 mm O.D. to 34.44-34.80 mm I.D.	CTP – 34 mm	GCTP – 34 mm	MCTP – 34 mm	SCTP-5/8"-18	BCTP-5/8"-18
1 1/2" O.D.-17 - 19 Gauge 38.1 mm O.D. to 35.15-35.97 mm I.D.	CTP – 35 mm	GCTP – 35 mm	MCTP – 35 mm	SCTP-5/8"-18	BCTP-5/8"-18

HYDRAULIC OPERATED SPEAR TYPE TUBE PULLER

The hydraulic spear model tube puller is used to remove tubes from heat exchangers before re-tubing without damaging the tube sheet holes.

The spear is screwed into the relevant tube by means of an impact wrench or slow running nutrunner motor.

The hydraulic cylinder with collar and quick action chuck is placed over the puller mandrel. The jaws are then closed around the thread on the puller mandrel by manual operation.

The tube is now ready to be removed by actuating the hydraulic ram.



Model no. : **RRH-306-155-SP-30**

Lightweight Hydraulic Double Acting Ram.

Capacity : 30 ton pulling power at 700 bar.

Stroke : 155 mm (6")

Cylinder O.D. : 120 mm (4 3/8")

Length : 440 mm (17 3/8")

Weight : 25 kg (55 lbs)



①



Tube Size O.D. and GA	Model ① Spear no.	Collar no.	Diameter small end	Diameter large end	Square	Thread on rear end of spear	Jaw no.	Adapter
1/2"-12-15BWG	HTP-1	HPC-1/2"	.276" 7 mm	.407" 10.3 mm	5/8"	M19x2	M19x2	3/4" x 5/8" or 1" x 5/8"
1/2"-15-22BWG & 5/8"-10-13BWG	HTP-2	HPC-1/2"	.354" 9 mm	.485" 12.3 mm	5/8"	M19x2	M19x2	
5/8"-13-18BWG & 3/4"-9-12BWG	HTP-3	HPC-5/8"	.453" 11.5 mm	.584" 14.8 mm	5/8"	M19x2	M19x2	
5/8"-18-24BWG & 3/4"-12-15BWG	HTP-4	HPC-5/8"	.531" 13.5 mm	.663" 16.8 mm	5/8"	M19x2	M19x2	
3/4"-15-19 BWG, 7/8"-11-13BWG & 1"-7-8BWG	HTP-5	HPC-3/4"	.571" 15.5 mm	.741" 18.8 mm	5/8"	M19x2	M19x2	
7/8"-13-17BWG & 1"-8-11BWG	HTP-6	HPC-7/8"	.689" 17.5 mm	.820" 20.8 mm	3/4"	M25x2	M25x2	3/4" x 3/4" or 1" x 3/4"
1"-11-14BWG & 1 1/8"-7-9BWG	HTP-7	HPC-1"	.748" 19 mm	.879" 22.3 mm	3/4"	M25x2	M25x2	
1"-14-20BWG & 1 1/8"-9-12BWG	HTP-8	HPC-1"	.846" 21.5 mm	.978" 24.8 mm	3/4"	M25x2	M25x2	
1 1/8"-12-15 BWG	HTP-9	HPC-1 1/8"	.905" 23 mm	1.037" 26.3 mm	3/4"	M25x2	M25x2	
1 1/8"-15-24 BWG & 1 1/4"-8-10BWG	HTP-10	HPC-1 1/8"	1.004" 25.5 mm	1.135" 28.8 mm	3/4"	M25x2	M25x2	
1 1/4"-14-18 BWG	HTP-11	HPC-1 1/4"	1.083" 27.5 mm	1.214" 30.8 mm	3/4"	M25x2	M25x2	1" x 3/4"
1 1/4"-18-24 BWG & 1 1/2"-8-10 BWG	HTP-12	HPC-1 1/4"	1.161" 29.5 mm	1.293" 32.8 mm	1"	M30x2	M30x2	1" x 1" or 1 1/2" x 1"
1 1/2"-10-13 BWG	HTP-13	HPC-1 1/2"	1.240" 31.5 mm	1.371" 34.8 mm	1"	M30x2	M30x2	
1 1/2"-13-17 BWG	HTP-14	HPC-1 1/2"	1.319" 33.5 mm	1.450" 36.8 mm	1"	M30x2	M30x2	

Larger sizes on request

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.

Model no. : **THPV-10-65**

Complete with power pack, hose, and replaceable jaws.

Tube size capacity : 10 - 65 mm O.D.
3/8" - 2 1/2" O.D.

Clamping power : 10 Ton

Air consumption : 340 Ltr./min.
12 cfm

Air pressure range: 2.7 - 8.3 bar
39 - 125 psi





SPINNER

TECO has developed 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 $\frac{1}{2}$ " 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 tube.
- 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.

