

# T-101 Drilling Machine

Sizes: 1/2- to 4-inches

Model T-101b



T.D. Williamson

Bulletin No: 2000.001.12

Version: 06.2023

Supersedes: 2000.001.11 (11.2019)



1/2" through 4" (DN 15 - DN 100) taps without shutdown. It can be used to install 2" and 3" completion plugs in tapping nipples to permit recovery of tapping valves and to install TDW PIG-SIG® Scraper Passage Indicators.

## Features

The Model T-101b Drilling Machine is available in two versions\*: the standard T-101B with 18" of travel and the XL Model with 28" of travel.

The T-101b and T-101b-XL Drilling Machines meet NACE Standard MR0175-93, sulfide stress cracking resistant metallic material for oilfield equipment. The maximum working pressure is 1,480 psi (100 bar) at 100°F (38°C). Its operating temperatures are -20°F (-29°C) to 700°F (371°C) at 700 psi (48 bar) for intermittent service. The maximum continuous rating is 350°F (177°C) at 1,025 psi (70 bar). Other features include:

- Lightweight - 32 pounds (XL is 50 pounds)
- Versatile - 1/2" through 4" taps
- Operates to 1,480 psi (2,220 psi for 904 Model)

## Options

T.D. Williamson is committed to providing you with the exact product to assist you in planning, budgeting and meeting the specifications for your individual application needs. The following options are available:

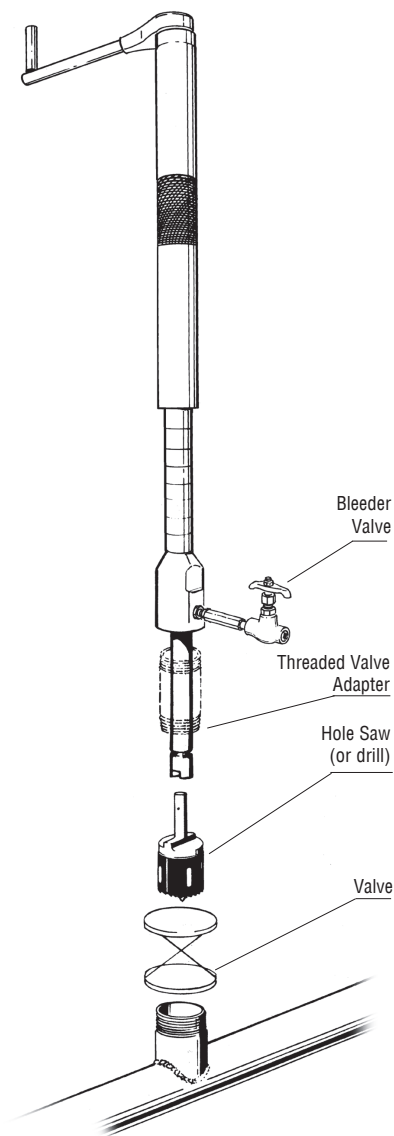
- The T-101 Drilling Machine is furnished with a ratchet crank for manual operation. An optional hose-connected, hand-held air motor can be easily added.

## Description

Drilling machines are used to make connections to pipelines, tanks and plant piping without shutdown and are used to make hot taps in preparation for plugging machine applications.

The T-101 Drilling Machine is a manual or power-driven machine which taps into pipe while under pressure. It is used for making

## ■ Typical Setup



\* The 904 Drilling Machine is a higher pressure (balanced) version of the T101B XL machine. It is rated at 2,220 psi (150 bar) at 180°F (82°C). For special requirements, such as higher pressure or temperature, consult the factory.



# T-101 Drilling Machine Models T-101b and T-101b-XL

## Drilling Machine



- The cap locks the feed and rotation of machine to set and retrieve completion plugs.

Item	Wt./ Lb.	Wt./Kg.	Part Number
T-101B Drilling Machine	32	15	05-1028-0000
T-101B-XL Drilling Machine	50	22	05-1029-0000
Includes: Crank Handle			00-1188-0004
Cap			05-1028-0046
Bleeder Valve			00-0774-0001
Nipple			00-0220-0001
Packing Wrench			05-0184-0020
Optional Equipment:			
Air Motor (Pistol Grip)	6	3	00-1508-0001
Air Motor (Right Angle)	8	4	05-2160-0000
Air Motor Torque Limiter			12392153
Drive Socket			00-1509-0004
Steel Carrying Case (Std.)	15	7	05-2100-0000
Steel Carrying Case (XL)	20	9	05-2101-0000
Plug Holder for 2" THREAD-O-RING™ Plug			05-0185-0001
Plug Holder for 2" and 3" SHORTSTOPP® Completion Plug			08-2120-0000

## Operating Specifications

Maximum Operating Pressure	1,480 psi (100 bar) @ 100°F (38°C)
Maximum Operating Temperature	700°F (371°C) @ 700 psi (48 bar)*

\* For intermittent service only. Maximum continuous rating is 350°F (177°C) at 1,025 psi (70 bar).

## Drilling Machine Specifications

Item	Standard Model		XL Model	
	Inches	mm	Inches	mm
Boring Bar Travel	18	457	28	711
Overall Length	46-5/16	1176	66-5/16	1684
Boring Bar Extension/Revolution	0.125	3.2	0.125	3.2
Feed Mechanism	Hand-Fed Machine		Hand-Fed Machine	

## Accessories for PIG-SIG® IV and V Installation

Item	Part Number
Drill for wall thickness more than 3/8" (9.5 mm)	05-0193-0001
Valve Adapter for Cutter or Drill - for use on 2" (50 mm) threaded valve	00-0706-0016
2" (50 mm) THREAD-O-RING™ Plug Holder for use with PIG-SIG® IV	05-0185-0001
PIG-SIG® V Plug Holder	00-8138-0000

2" (50 mm) ASME Class 600 conventional valve with 2-1/16" (53 mm) through-bore is recommended for use in making taps for PIG-SIG® Scraper Passage Indicator installation.



# T-101 Drilling Machine Models T-101b and T-101b-XL

Drills	Drill Diameter		Drill Length		Valve Size		Part Number
	Inches	DN	Inches	mm	Inches	mm	
	1/2	12.7	6	150	1-1/4 - 2	32-50	05-0203-0005
	1/2	12.7	22-1/4	565	1	25	05-0189-0001
	3/4	19.0	6	150	1-1/4 - 2	32-50	05-0203-0009
	3/4	19.0	22-1/4	565	1	25	05-0189-0002
	1	25.0	6	150	1-1/4 - 2	32-50	05-0203-0012
	1-1/4	32.0	6	150	1-1/2 - 2	40-50	05-0203-0013
	1-7/16	36.5	7-3/8	187	1-1/2 - 2	40-50	05-0193-0001

Hole Saws/Cutters and Holder Pilots	Tap Size		Cutter Diameter		Size-on-Size Hole Saw/Cutter Holder		Non Size-on-Size Pilot Holder Pilot
	Inches	DN	Inches	mm	Part No.	Part No.	Part No.
	1-1/4	32	1-5/16	33.3	00-1151-0005	05-0634-0000	05-0290-0000 *
	1-1/2	38	1-9/16	39.7	00-1151-0009	05-0275-0000	05-0290-0000
	2	50	1-7/8	47.6	05-0179-0002	05-0204-0000	05-0207-0000
	3	80	2-7/8	73.0	05-0179-0003	05-0204-0000	05-0207-0000
	4	100	3-7/8	98.4	05-0179-0004	05-0205-0000	05-0228-0000

\*Use 05-0634-0000 pilot for 1-1/4" hot tap on 1-1/2" (38 mm) pipe only.

Threaded Valve Adapters	Inches	DN	Part Number	Maximum Pressure	
				psi	Bar
	1	25	06-1223-0001	1480	100
	1-1/4	32	00-0757-0012	1480	100
	1-1/2	38	00-0757-0011	1480	100
	2	50	00-0706-0015	1480	100
	3	80	06-1303-0001-02	1480	100

Flanged Valve Adapters - ASME Class	Inches	DN	ASME Class		
			Class 150 RF	Class 300 RF	Class 600 RF
	2	50	06-1305-0015	06-1305-0030	06-1305-0060
	3	80	06-1318-0015	06-1318-0030	06-1318-0060
	4	100	06-1302-0015	06-1302-0030	06-1302-0060 *
	6" SANDWICH® Valve	150	06-8872-0001	06-8872-0002	06-8872-0003
	6" Gate Valve	150	06-8684-0001	06-8685-0001	06-8872-0004

\*For 4-inch taps with the T-101 this adapter must be used with TDW 4-inch SANDWICH® Valve to ensure sufficient boring bar travel to complete the tap.

Valve Dimensions for Making Taps	Nominal Size		Minimum Bore	
	Inches	DN	Inches	mm
	2	50	2-1/16	52.4
	3	80	3-1/16	77.8
	4	100	4-1/32	102.4