

MiniDrill-500-WTRT

High-Performance Tube Wall Reduction Machine

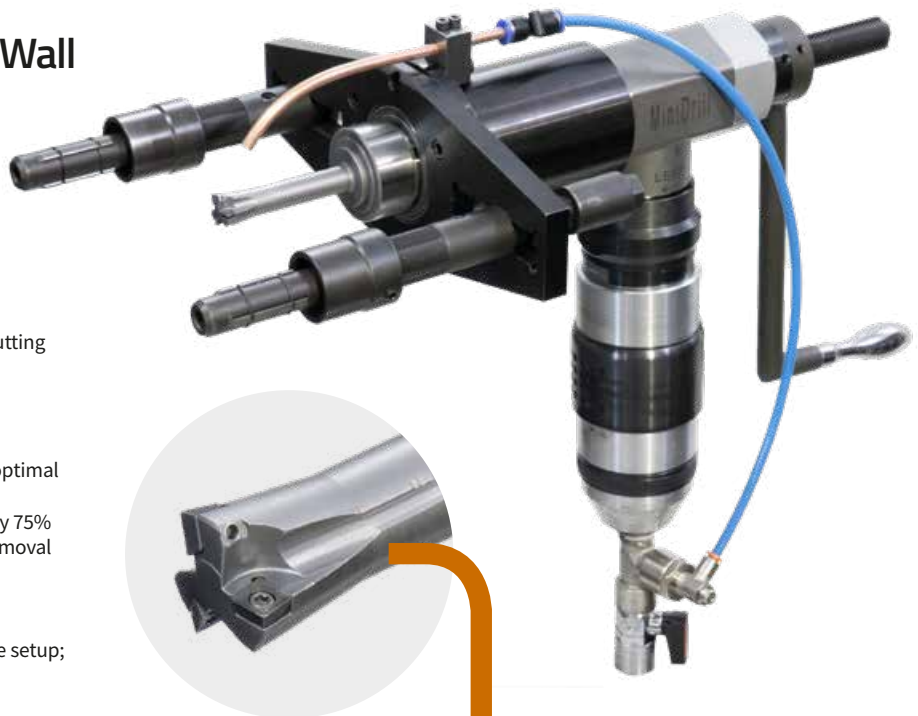
The MiniDrill-500-WTRT-AC is engineered for rapid and reliable tube wall reduction across a variety of demanding materials — from carbon steel and stainless steel to tough alloys like Inconel in the heat exchanger

KEY FEATURES:

- ▶ Three carbide cutting inserts, each with four cutting edges for maximum durability and efficiency.
- ▶ Operating speed: 500 RPM
- ▶ Torque output: 120 Nm – ensures strong and consistent cutting performance
- ▶ Standard air cooling system – helps maintain optimal cutting temperature and prolong tool life.
- ▶ Efficient Tension Relief: Releases approximately 75% of expansion tension, allowing for easy stub removal using a TD tube drift or CT collapsing tool.

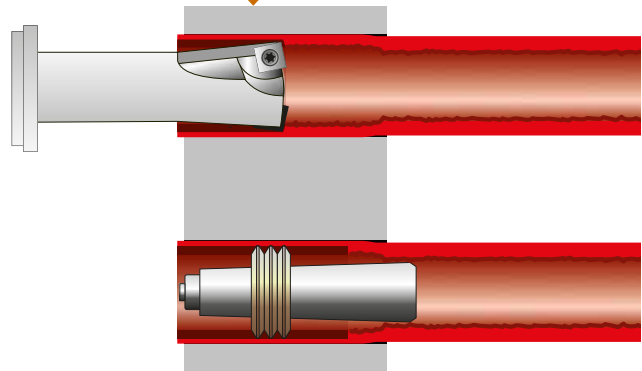
Optional fast-change configuration includes:

- ▶ two pneumatic locks for quick, secure machine setup;
- ▶ ideal for high-throughput maintenance tasks.



TYPICAL USE CASES

- ▶ Tube wall reduction for easy removal from the heat exchanger tube sheet.
- ▶ Perfect for removing corrosion and reaming out damaged tube ends in heat exchangers to prepare the surface for secure and effective plugging.
- ▶ Especially useful in power plants, refineries, and chemical processing facilities where quick maintenance turnaround is critical.



TOOLING CHART

TUBE OD		TOOL NUMBER	TOOL DIAMETER		DRILLING LENGTH		NO. OF INSERTS
[INCH]	[MM]		[INCH]	[MM]	[INCH]	[MM]	
5/8"	15,88	MDWTRT-148	0,583	14,8	2,5"	63,5 mm	2
3/4"	19,05	MDWTRT-180	0,709	18,0	2,5"	63,5 mm	3
7/8"	22,22	MDWTRT-210	0,827	21,0	2,5"	63,5 mm	3
1"	25,40	MDWTRT-245	0,965	24,5	2,5"	63,5 mm	3
1-1/4"	31,75	MDWTRT-307	1,209	30,7	2,5"	63,5 mm	3
1-1/2"	38,10	MDWTRT-371	1,461	37,1	2,5"	63,5 mm	3

TOOLS FOR FIN-FAN COOLERS

A dedicated version is also available for Fin-Fan coolers, with length customized to fit the header size—perfect for retubing 1" tubes with ease and precision.



PRECISION LOCKING SYSTEM INCLUDED

The machine comes standard with two locking plates:

- ▶ For 3/4" tubes with 1" hole pitch
- ▶ For 1" tubes with 1-1/4" hole pitch



Other configurations are available upon request. To ensure maximum accuracy and protect the tube sheet, we machine the tube to 0.5 mm (0.019") clearance. For this reason, we do not recommend using adjustable locking plates, as improper adjustment can lead to tube sheet hole damage.

OPTIONAL PNEUMATIC LOCKING SYSTEM

For even faster setup and improved efficiency, we offer an optional set of two pneumatic locks. This upgrade enables quick and secure locking, saving valuable time during operations—especially useful in high-volume or repetitive tasks.

