



MAX *IMPACT POWER*



IMPACT MOLES

termamax.com

**LOW MAINTENANCE AND SERVICE COSTS // EXCEPTIONAL ACCURACY
RELIABILITY // PROVEN EFFECTIVENESS // EASE OF USE AND CONTROL
DURABILITY // FUNCTIONALITY // ECO-FRIENDLY SOLUTIONS**

SELECTING THE RIGHT MACHINE FOR MAKING BOREHOLES

The table below specifies the diameters of boreholes made by particular models. Trenchless moles can be additionally equipped with an expanding tool, also known as a calibrator. It allows making holes with a much larger diameter than the diameter of the machine itself.

MACHINE	MAKING BOREHOLES										
	Ø 55	Ø 65	Ø 75	Ø 95	Ø 135	Ø 130	Ø 160	Ø 180	Ø 195	Ø 219	Ø 244
MAX K55S	MOLE										
MAX K65KS		MOLE									
MAX K65S		MOLE									
MAX K75KS			MOLE								
MAX K75S			MOLE								
MAX K95S				MOLE	MOLE + EXPANDING TOOL						
MAX K130S						MOLE	MOLE + EXPANDING TOOL	MOLE + EXPANDING TOOL	MOLE + EXPANDING TOOL	MOLE + EXPANDING TOOL	
MAX K160S							MOLE	MOLE + EXPANDING TOOL	MOLE + EXPANDING TOOL	MOLE + EXPANDING TOOL	
MAX K180S								MOLE	MOLE + EXPANDING TOOL	MOLE + EXPANDING TOOL	MOLE + EXPANDING TOOL

■ MOLE
■ MOLE + EXPANDING TOOL

SELECTING THE RIGHT MACHINE FOR PULLING PLASTIC PIPES

The table below shows typical PE / PVC pipe diameters and specifies the machine for a given diameter. In order to pull a pipe of a given diameter the machine must be equipped with a sleeve for inserting pipes. In some cases it is also necessary to use an expanding tool.

MACHINE	PULLING PLASTIC PIPES										
	Ø 50	Ø 63	Ø 75	Ø 90	Ø 110	Ø 125	Ø 140	Ø 160	Ø 180	Ø 200	Ø 225
MAX K55S											
MAX K65KS	MOLE + ACCESSORIES FOR PULLING PIPES										
MAX K65S	MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES									
MAX K75KS		MOLE + ACCESSORIES FOR PULLING PIPES									
MAX K75S		MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES								
MAX K95S			MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES							
MAX K130S					MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	
MAX K160S					MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	
MAX K180S							MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL	MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL

■ MOLE + ACCESSORIES FOR PULLING PIPES
■ MOLE + ACCESSORIES FOR PULLING PIPES OR/AND EXPANDING TOOL

SELECTING THE RIGHT MACHINE FOR RAMMING STEEL PIPES

The table below shows capabilities of particular machines in terms of driving in steel pipes. The length of pipes being installed depends on local ground conditions.

MACHINE	RAMMING STEEL PIPES										
	Ø 133	Ø 159	Ø 219	Ø 273	Ø 323	Ø 355	Ø 406	Ø 457	Ø 508	Ø 610	Ø 711
MAX K55S											
MAX K65KS											
MAX K65S											
MAX K75KS											
MAX K75S											
MAX K95S	MOLE	MOLE	MOLE								
MAX K130S	MOLE	MOLE	MOLE	MOLE	MOLE						
MAX K160S	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE				
MAX K180S	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE
MAX T240			MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE	MOLE

IMPACT MOLE

STEEL REINFORCEMENT OF PNEUMATIC AIR HOSE

Increases its endurance and secures it from bends and deformations.

CONTROL HOSE

An inner control hose is hidden inside the outer air supply hose. This hose-in-hose solution provides protection against physical damage.

REPLACEABLE TEFLON GUIDINGS AND SEALINGS

Ensure the long working life of a machine. Reduce maintenance expenses and compressed air loss inside a machine.

MONOLITHIC PISTON

Reduces operating and service costs.

MODULAR BODY CONSTRUCTION

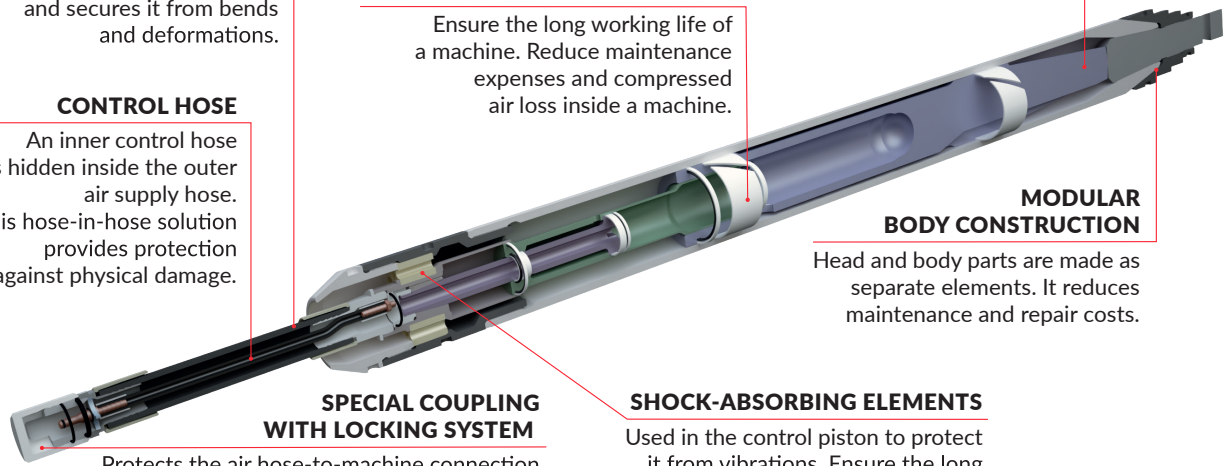
Head and body parts are made as separate elements. It reduces maintenance and repair costs.

SPECIAL COUPLING WITH LOCKING SYSTEM

Protects the air hose-to-machine connection from unscrewing while working.

SHOCK-ABSORBING ELEMENTS

Used in the control piston to protect it from vibrations. Ensure the long working life of a machine.



CONTROL STATION

SPECIAL COUPLING WITH LOCKING SYSTEM

in the pneumatic air hose. Protects the air hose-to-machine connection from unscrewing while working.

OIL TANK PLUG

STEPLESS POWER REGULATOR

Allows the operator to apply optimal working power depending on soil conditions.

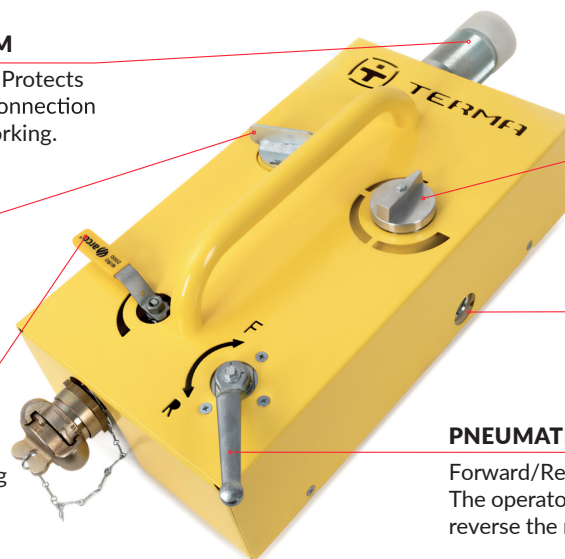
OIL SUPPLY REGULATOR

Smooth regulation of oil supply.

OIL LEVEL INDICATOR

PNEUMATIC CHANGE OF DIRECTION

Forward/Reverse lever in every machine. The operator can, if necessary, reverse the machine back to the start pit.



SPECIFICATIONS OF IMPACT MOLES

PARAMETR	UNIT	MAX K55S	MAX K65KS	MAX K65S	MAX K75KS	MAX K75S	MAX K95S	MAX K130S	MAX K160S	MAX K180S
diameter	mm	55	65	65	75	75	95	130	160	180
length	mm	1180	937	1366	1146	1501	1641	1815	2110	2256
weight	kg	15	15	22.5	24.5	33	56	115	203	275
air consumption*	m ³ /min	0.7 (1.1)	0.8 (1.2)	0.8 (1.2)	1.0 (1.2)	1.1 (1.8)	1.7 (2.5)	2.4 (3.6)	3.5 (4.5)	4.5 (5)
air pressure	atm	7	7	7	7	7	7	7	7	7
impact energy	J	40	70	100	80	150	250	430	710	1140
impact frequency	Hz	8	11.5	6	7.6	6	7	6	6	5

*the recommended value in brackets ensures optimal working parameters

TERMA MAX PNEUMATIC MOLES



MAX K55

- making boreholes (Ø 55 mm)
- pulling plastic pipes (Ø 25 mm – 40 mm) using towing carrot



MAX K65KS (short version)

- making boreholes (Ø 65 mm)
- pulling plastic pipes (Ø 50 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 25 mm – 55 mm) using towing carrot



MAX K65S

- making boreholes (Ø 65 mm)
- pulling plastic pipes (Ø 50 mm and Ø 63 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 25 mm – 55 mm) using towing carrot



MAX K75KS (short version)

- making boreholes (Ø 75 mm)
- pulling plastic pipes (Ø 63 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 25 mm – 55 mm) using towing carrot



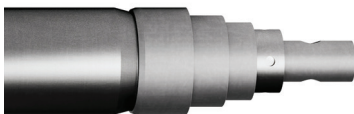
MAX K75S

- making boreholes (Ø 75 mm)
- pulling plastic pipes (Ø 63 mm and Ø 75 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 25 mm – 55 mm) using towing carrot



MAX K95S

- making boreholes (Ø 95 mm)
- expanding the hole diameter to 135 mm
- pulling plastic pipes (Ø 75 mm and Ø 90 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 25 mm – 75 mm) using air hose towing carrot
- ramming steel pipes up to 219 mm in diameter



MAX K130S

- making boreholes (Ø 130 mm)
- expanding the hole diameter to 160 mm, 180 mm, 195 mm, 219 mm
- pulling plastic pipes (Ø 110 mm and Ø 125 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 140 mm – 200 mm) using expanders
- pulling plastic pipes (Ø 25 mm – 75 mm) using air hose towing carrot
- ramming steel pipes up to 323 mm in diameter



MAX K160S

- making boreholes (Ø 160 mm)
- expanding the hole diameter to 195 mm, 219 mm
- pulling plastic pipes (Ø 110 mm – 140 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 160 mm – 200 mm) using expanders
- pulling plastic pipes (Ø 25 mm – 75 mm) using air hose towing carrot
- ramming steel pipes up to 406 mm in diameter



MAX K180S

- making boreholes (Ø 180 mm)
- expanding the hole diameter to 219 mm, 244 mm
- pulling plastic pipes (Ø 140 mm and Ø 160 mm) using pipe pulling tailpiece
- pulling plastic pipes (Ø 180 mm – 225 mm) using expanders
- pulling plastic pipes (Ø 25 mm – 75 mm) using air hose towing carrot
- ramming steel pipes up to 406 mm in diameter

TERMA MAX STEEL PIPE RAMMER

MAX T240



Technical parameters:

- outside diameter 240 mm (9½")
- length 1639 mm (64.17")
- weight 378 kg (838 lb.)
- air pressure 6 bar (87.02 psi)
- air consumption 6.0 – 7.5 m³/min (212 – 265 cfm)
- impact energy 2000 J (1475 ft. lb.)
- impact frequency 1.7 – 2.5 Hz

Intended use: ramming steel pipes with diameter up to **711 mm (28")**

ACCESSORIES FOR MAX IMPACT POWER PNEUMATIC TOOLS



FOR AIMING AND POSITIONING

Optical Set, Starting Platform

Allow precise adjustment of the machine in the starting pit.



FOR PULLING PLASTIC PIPES

Tools for pulling plastic pipes

Allow pulling PE, PCV pipes directly behind the machine.

Tools for pulling plastic pipes manually

Allow installation of smaller diameter PE/PVC pipes manually by pulling the hose.

Rope tensioner

Is required for installing larger diameter plastic pipes.



FOR RAMMING STEEL PIPES

Cones

Allow installation of steel pipes by placing them in front of the piercing / ramming machine.

Tools for removing sand and debris from installed steel pipes

Are required for larger diameter steel pipes.



FOR EXPANDING HOLES

Expanding tools

Allow making larger boreholes than the diameter of the piercing machine.

FOR MORE INFORMATION, CONTACT OUR LOCAL PARTNER:



...OR CONTACT US DIRECTLY:

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Terma Sp. z o.o. is a leading Polish manufacturer of trenchless technology machines, pneumatic impact "moles". Trenchless technology machines are indispensable for laying water and gas pipelines, electrical and telecommunications installations and steel pipes for any application. Our products set new standards in the industry. The manufacturing process takes place in a state-of-the-art facility, with the use of most advanced technology. We have been present in the market for many years and by now we have earned reputation of being a leader among trenchless technology suppliers not only in Poland but also among users around the world.



MAX K130S

1st place
THE MOLE RODEO

The First International Trenchless
Technology Competition
// Zawiercie 2012 //



MAX K95S

EXPERT 2012
THE INNOVATIVE DEVICE

Trenchless Technology
NO-DIG Poland
// Kielce 2012 //



MAX K55

EXPERT 2014
THE INNOVATIVE DEVICE

Trenchless Technology
NO-DIG Poland
// Kielce 2014 //