



ESSIG IMPACT MOLES. TRUSTED. FOR GENERATIONS.

With innovative ESSIG impact moles, you can install underground utility lines reliably, quickly and without extensive excavation.

For more than 60 years, our technology has helped save time, reduce costs, protect existing infrastructure and keep construction projects running smoothly from the very beginning.



THE ANSWER TO YOUR DAILY CHALLENGES. ESSIG IMPACT MOLES.



Time pressure, rising costs and traffic disruptions.

These are just some of the challenges faced every day by construction companies, utility providers and network operators. Traditional utility installation often requires extensive excavation, long construction periods and unpredictable delays.

Common Challenges in Infrastructure Projects



Extensive Excavation: High labour and material requirements.



Long Project Durations: Delays and disruptions to traffic flow.



High Costs: Unexpected expenses caused by traffic management and detours.



Impact on Ground and Infrastructure: Additional repair and restoration costs.



Planning Uncertainty: Unforeseen complications on site.

WHY INVESTING IN ESSIG IMPACT MOLES PAYS OFF.

ESSIG impact moles provide a more economical solution for underground utility installation while delivering measurable savings in both time and cost.

YOUR BENEFITS AT A GLANCE



Shorter Project Timelines: Projects are completed in less time.



Cost Efficiency: Reduced labour, material and restoration costs.



Lower Follow-Up Costs: Roads, pavements and green areas remain largely untouched.



Fast ROI: The investment pays for itself after only a few applications.





VERSATILE APPLICATIONS. ONE TECHNOLOGY, MANY USES.

ESSIG impact moles enable trenchless installation of a wide variety of underground utilities. Power cables, fibre-optic networks, water pipes, gas pipelines and e-mobility infrastructure can be installed beneath roads, pathways, driveways and green areas without the need for disruptive surface excavation. This saves time, reduces construction effort and protects existing infrastructure as well as the surrounding environment.



ELECTRICITY

Reliable routes for secure power distribution



GAS

Precise installation for dependable energy supply



E-MOBILITY

Infrastructure for the mobility of tomorrow



FIBRE OPTICS

Fast network connectivity using modern trenchless technology



WATER

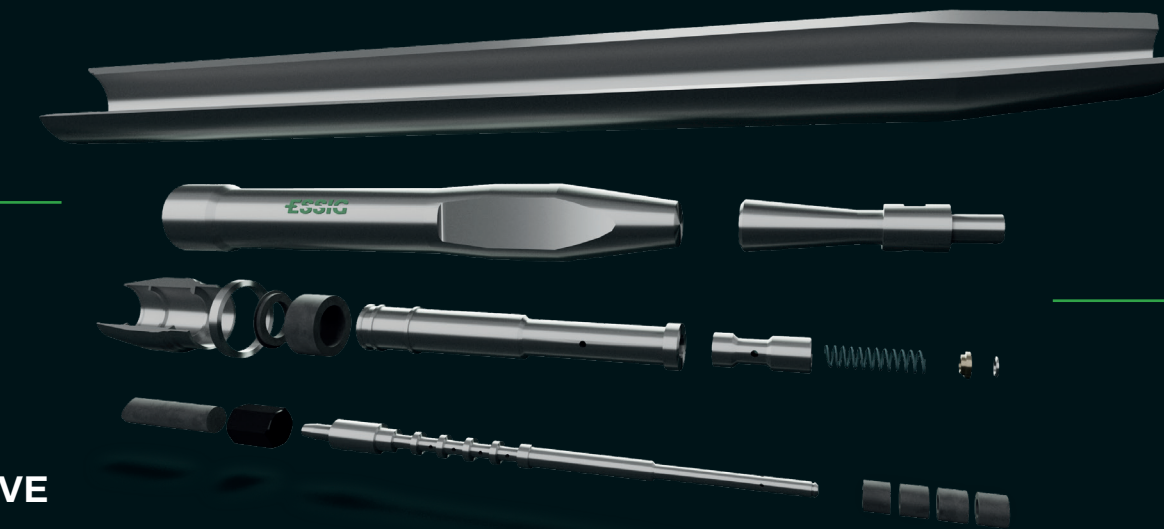
Low-impact installation for intact surroundings

Construction companies benefit from faster infrastructure projects, **utility providers** from safe and reliable pipe and cable installation, **municipalities** from efficient work in public spaces, and the **telecommunications industry** from cost-effective fibre-optic expansion. The technology is proven, reliable and highly versatile.

PRECISE

COST-EFFECTIVE

ROBUST



TRENCHLESS UTILITY INSTALLATION. POWERED BY COMPRESSED AIR.

ROBUST. RELIABLE. DURABLE. EASY TO OPERATE.

For more than 60 years, ESSIG impact moles have stood for exceptional quality. The trenchless technology solves the typical challenges associated with conventional construction methods and enables utility installation beneath roads, pathways and buildings.

How It Works: ESSIG impact moles operate using the soil displacement method. Powered by compressed air and a reciprocating piston, the mole is driven through the ground in a controlled manner. In the process, it

displaces the soil without removing it. The resulting bore channel allows cables or pipes to be pulled through directly or installed afterwards.

The Result: A clean, fast and surface-friendly installation method, ideal for electricity, gas, fibre-optic and water networks.

OUR HIGHLIGHTS



FUNCTIONALITY AND OPERATION

ESSIG impact moles combine power, precision and ease of use in a compact system. Thanks to their robust design, intuitive operation and high impact frequency, they have proven themselves in daily use. Consistent energy transfer ensures reliable performance even in challenging soil conditions.



Reliable Manual Direction Change

Switching between forward and reverse operation is easily achieved by pulling the compressed-air hose. After switching the compressor off and on again, the mole automatically resumes forward operation. This mechanical control system is particularly robust, easy to use and significantly less prone to failure than comparable systems.



Precise Straight-Line Accuracy

The design of ESSIG impact moles ensures excellent directional stability, even over longer distances. This provides outstanding accuracy, reduces corrective work and significantly increases efficiency on site. The result is faster project completion and reliable drilling performance every time.

IMPACT MOLES. TRENCHLESS. ON COURSE.



IMPACT MOLES ●

ESSIG impact moles enable the installation of utility lines with diameters of **up to DN 200** and installation lengths of **up to 20 metres**. They are available in a wide range of standard versions and can be customised in both length and diameter to meet specific project requirements.

Thanks to the extensive range of accessories, ESSIG impact moles can be used flexibly across a wide variety of applications.

Type = Bore Ø [mm]	Length [mm]	Weight [kg]	Air Consumption [m³/min] at 6-7 bar	Impact Rate [min]	Pipe-Ø [mm]	Expansion Cone
45	800	8	1,0	330	DA 32	----
45	1000	9	1,0	330	DA 32	----
55	950	12	1,0	330	DA 40	----
55	1200	16	1,0	330	DA 40	----
65	1060	20	1,0	330	DA 50	----
65	1300	25	1,0	330	DA 50	----
70	1050	22	1,0	330	DA 60	----
70	1500	27	1,0	330	DA 60	----
75	1500	29	1,0	330	DA 63	----
80	1500	36	1,5	330	DA 70	----
95	1200	42	2,0	400	DA 85	120,130,140,160
95	1500	50	2,0	400	DA 85	120,130,140,160
110	1500	72	2,0	400	DA 100	140
130	1600	90	2,5 - 3,5	400	DA 110	150,160,180,200
145	1850	140	5,0	400	DA 125	180,200,250

PIPE RAMMERS. GO BIG.



PIPE RAMMERS ○

When soil displacement is not possible due to insufficient cover, soft ground or loose soil conditions, **ESSIG** pipe rammers are used. In steel pipe installation, protective steel casings are driven through the ground using the pipe ramming method.

After installation, the soil that has entered the pipe is either pushed out using pipe plugs or flushed out as a soil core.

Depending on soil conditions, steel pipes ranging from **DN 70 to DN 1400** can be installed over **distances of up to 60 metres** using the appropriate ESSIG pipe rammer.

Type = Bore Ø [mm]	Length [mm]	Weight [kg]	Air Consumption [m³/min] at 6-7 bar	Impact Rate [min]	Up to Pipe Ø [mm]
130	1600	90	2,5 - 3,5	400	DA 200
145	1850	140	5,0	400	DA 400
155	1800	160	6,0	320	DA 500
240	1700	370	7,0	370	DA 600
260	2300	640	7,0 - 10,0	200	DA 800
400	2400	1650	20,0	180	DA 1400
530	2800	3500	40,0	180	DA 2000

TOO MANY OPTIONS TO CHOOSE FROM?

Our experts will be happy to help you select the right impact moles or pipe rammer for your specific project requirements.
Get in touch →



FULLY EQUIPPED WITH THE RIGHT ACCESSORIES.



ESSIG impact moles ensure efficiency and versatility in trenchless pipe installation.

With the right accessories, impact moles and pipe rammers can be optimally adapted to different operating conditions.
This creates a flexible system that enables economical work and precise results.

A wide range of accessory components is available for flexible use.
Our team will be happy to assist you in selecting the right solution for your project.



SERVICE, YOU CAN RELY ON.

For decades, ESSIG has stood for quality, precision and reliability, not only in its products but also in its service. Whether repairs, spare parts or technical advice, our experienced team ensures that your ESSIG impact moles and pipe rammers remain ready for operation at all times.



Repairs: **ESSIG** impact moles are manufactured entirely in Germany and serviced here as well.

At our production facility, an experienced team provides fast, reliable and cost-effective repairs. **Contact us and get your equipment back into operation as quickly as possible.**



Spare Parts: **ESSIG** impact moles are designed to be robust and focused on essential functionality, making them particularly easy to maintain.

Should a component ever need replacement, we can supply genuine spare parts quickly and efficiently.



Support: Would you like to learn more about our products or discuss specific applications? Our experienced service specialists provide comprehensive, professional and personal support by phone, email or on-site.



60 YEARS OF ESSIG. WHEN OTHERS DIG, WE LEAD THE WAY.

WHERE QUALITY MAKES THE DIFFERENCE

German Manufacturing Excellence:

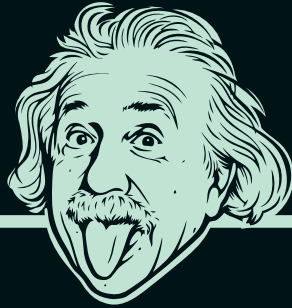
Produced in Porta Westfalica, Germany.
60 years of experience in trenchless technology.

State-of-the-Art Technology: CE-certified equipment that combines modern engineering with proven design.

Durable, Reliable and Practical: Robust construction for maximum operational reliability, long service life and easy handling.

TRENCHLESS TECHNOLOGY DRIVEN BY EXPERIENCE AND PASSION

60 years of company history demonstrate what **ESSIG** stands for: reliability, quality and innovation in trenchless installation and rehabilitation. As a family-owned company based in Porta Westfalica, we draw on decades of expertise and technical know-how to tackle a wide range of project challenges. We develop solutions that make work easier, safer and more efficient.



**EVEN EINSTEIN
COULDN'T HAVE
DONE IT BETTER.**

**ESSIG IMPACT MOLES.
THE ORIGINAL.**

**DO YOU HAVE
QUESTIONS
ABOUT OUR
PRODUCTS?**

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