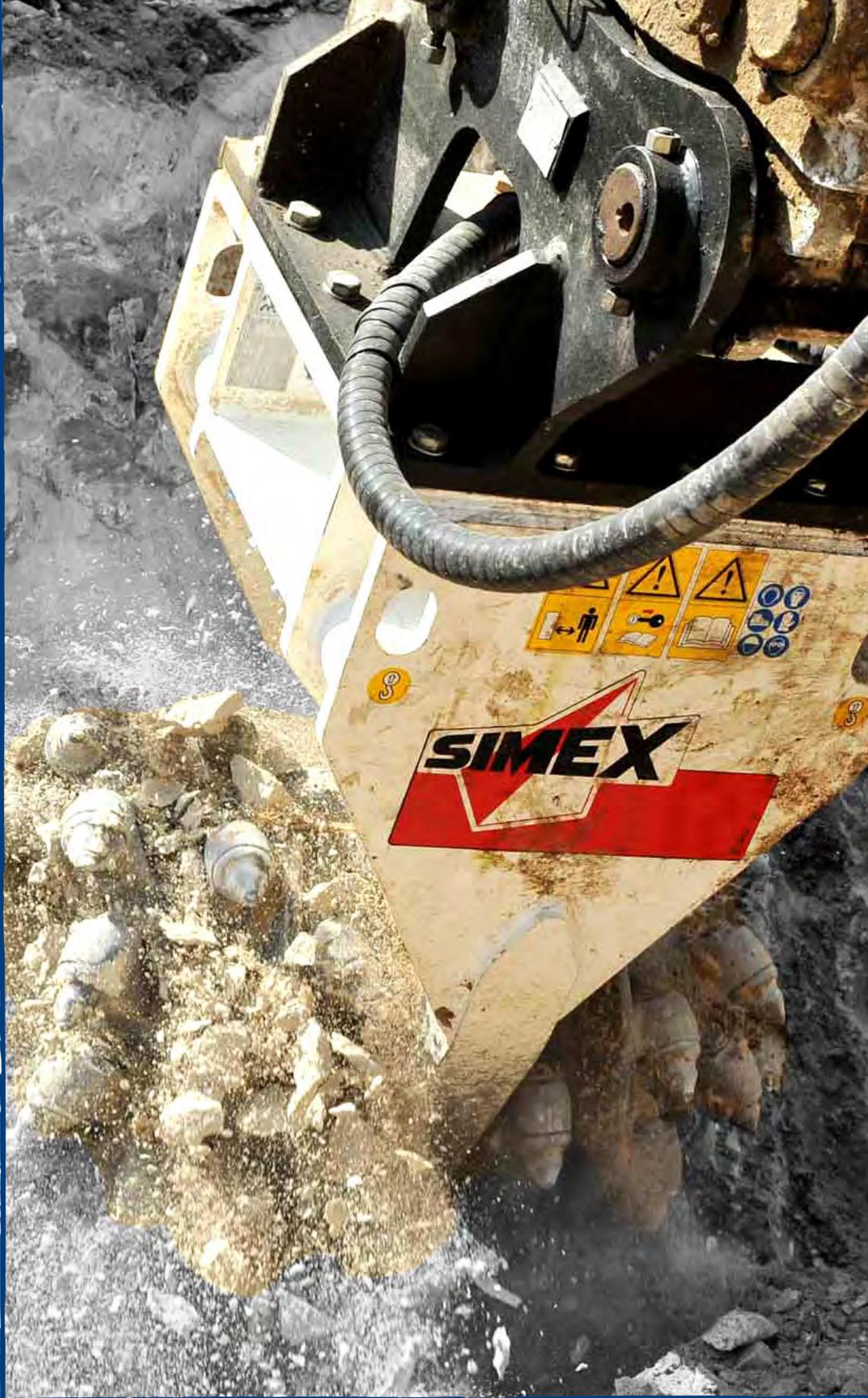


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ITALIAN TECHNOLOGY
REACHING THE WORLD

Cutter Heads



ITALIAN TECHNOLOGY
REACHING THE WORLD

Simex was established in 1991 in San Giovanni in Persiceto near Bologna and quickly became a recognized producer of hydraulic attachments for earthmoving machines.

Early products included planers for backhoe loaders followed by planers for skid steer loaders. Simex then successfully expanded into international markets thanks to the production of wheel excavators, wheel compactors and asphalt pavers, gaining excellence in road maintenance attachments, a field in which the company remains an undisputed leader.

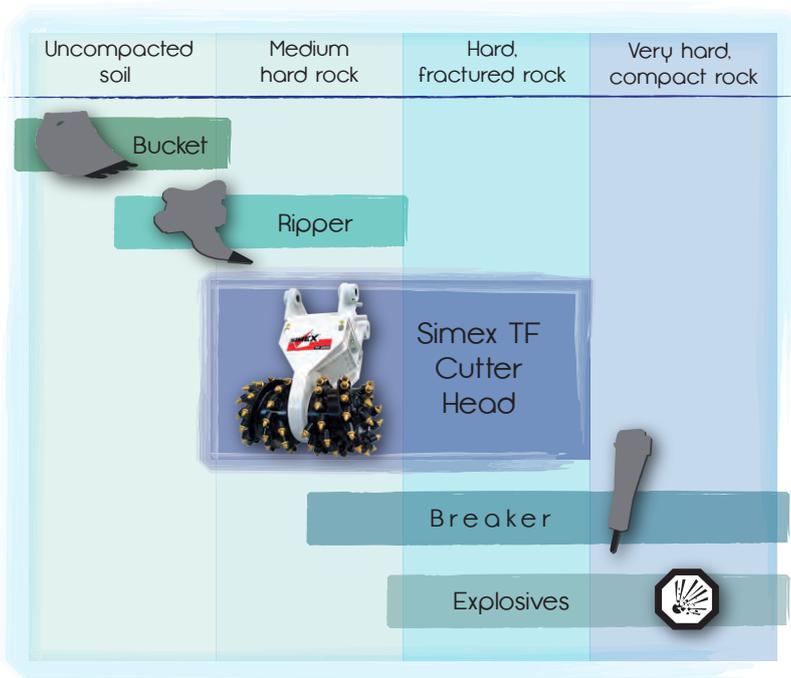
Design and production of new model attachments, such as the double-drum cutter heads, crusher buckets and screening buckets with adjustable output size for excavators are examples of Simex's ongoing dedication to designing efficient solutions. Our new patents are further testament to the brand's constant quality.

With 11 product lines and 62 models, today Simex offers a wide selection of attachments for an extensive set of applications for road maintenance, trenching for utilities installation, recycling of aggregates and quarrying.



SIMEX TF CUTTER HEADS

FIELDS OF APPLICATION



Ideal for trenching hard materials, profiling and resurfacing rock and cement walls, quarrying, demolitions and dredging, Simex Cutter Heads are extremely efficient where conventional excavation systems are too weak and percussion systems have little effect.

The special design of the Simex Cutter Head does not cause damage or disturbance to the surroundings so it can be put to work near populated areas, hospitals, schools, bridges and infrastructure. It is especially recommended for finishing operations, where requirements call for high precision, minimum intrusion and an optimum aesthetic result.



ADVANTAGES OF THE SIMEX MILLING TECHNIQUE

- PRECISE CUTTING
- LOW VIBRATIONS
- HIGH PERFORMANCE
- LOW NOISE LEVEL
- NARROW, DEEP TRENCHING
- EXCELLENT UNDERWATER PERFORMANCE
- MAINTENANCE-FREE
- SPOIL CAN BE REUSED DIRECTLY ON SITE
- INDISPENSABLE WHERE NORMAL EXCAVATION SYSTEMS ARE TOO WEAK AND PERCUSSION SYSTEMS HAVE LITTLE EFFECT.

UNIQUE TEC

Specially shaped frame

Allows the blocks of milled material to be discharged from the trench without getting stuck in the frame; also enables hoses to be hooked up at sides and at front.

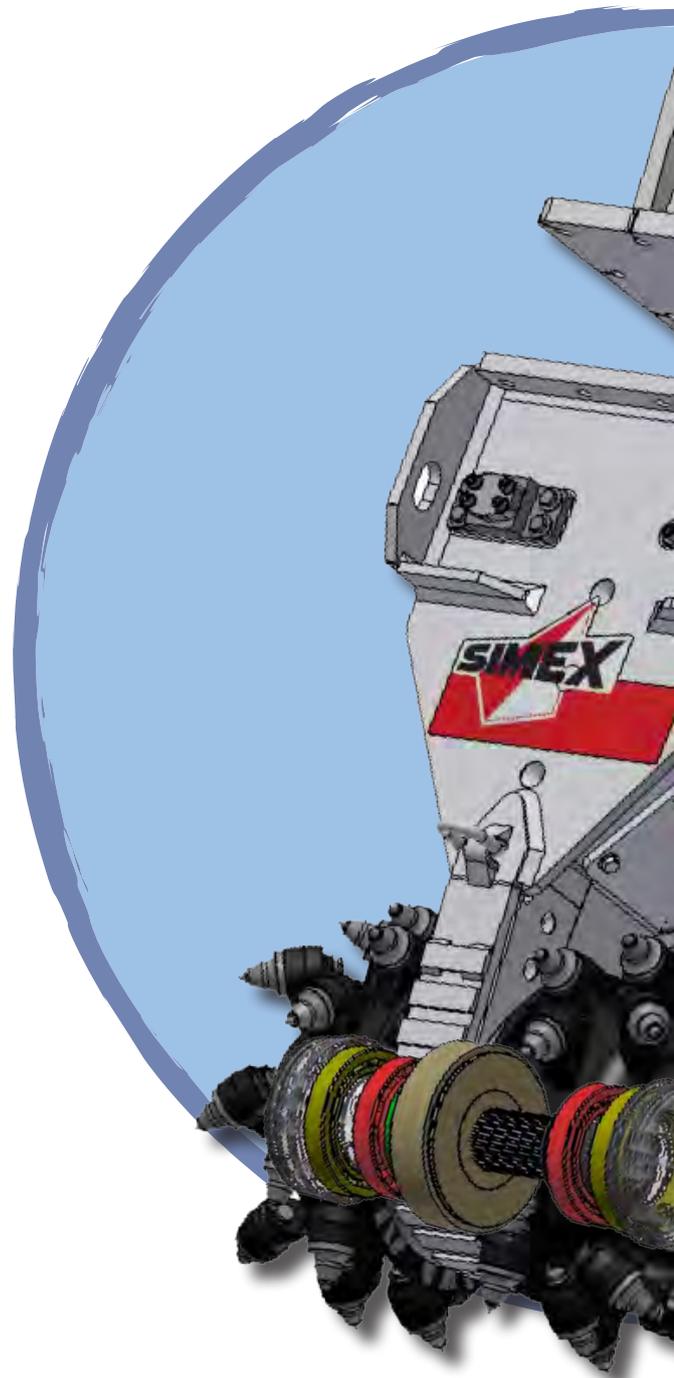
Oil flow limiting valve

No risk of hydraulic motor over revving.

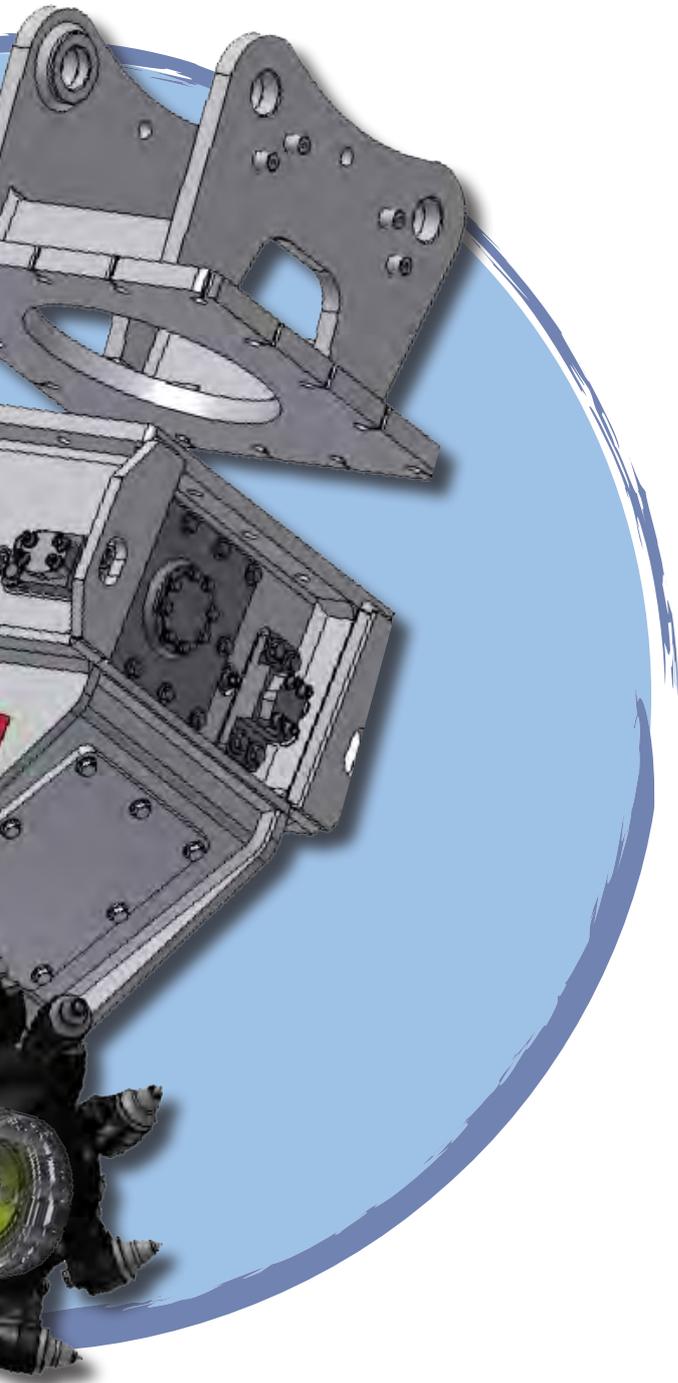
Replaceable **anti-wear plates**.

Motor with direct cutter drum drive

Integrated high displacement hydraulic piston motor ensures both high performance and high torque.



TECHNOLOGY

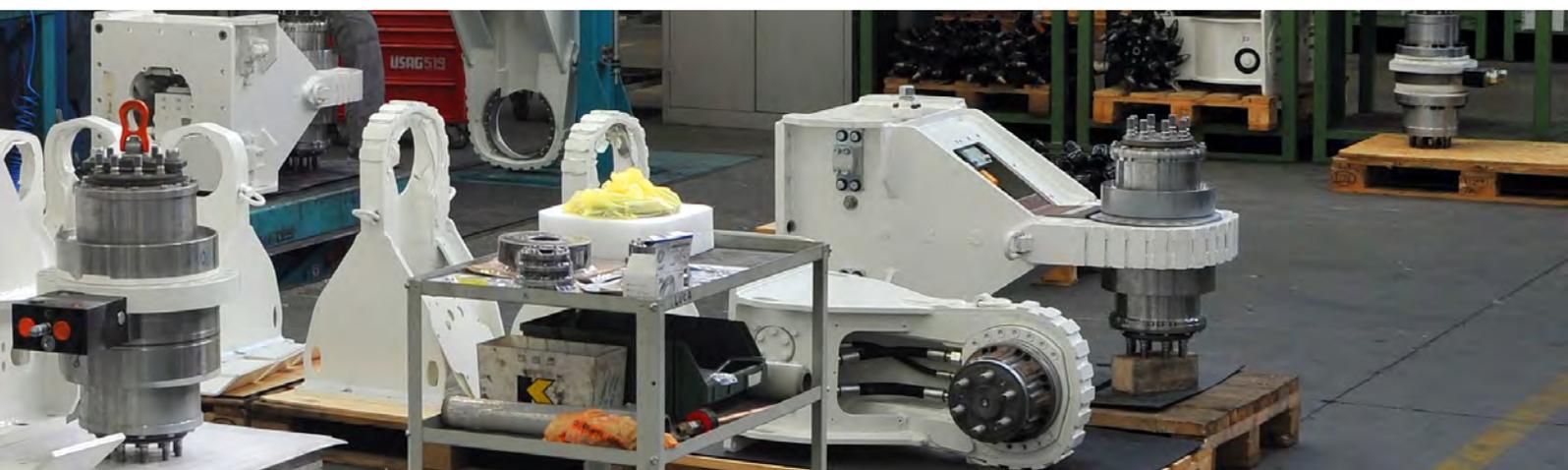


Square holes of coupling plate
Allow the cutter head to rotate 90°.

Filter on pressure line.
Prevents impurities from entering the motor, for example when hoses are being connected to the excavator.

Drums fitted with gaskets to seal against dust, also when attachment is submerged into the ground, even in muddy conditions.

Drum support bearings
Double support bearings for each drum.
Shaft transmits motion only and bears no load.



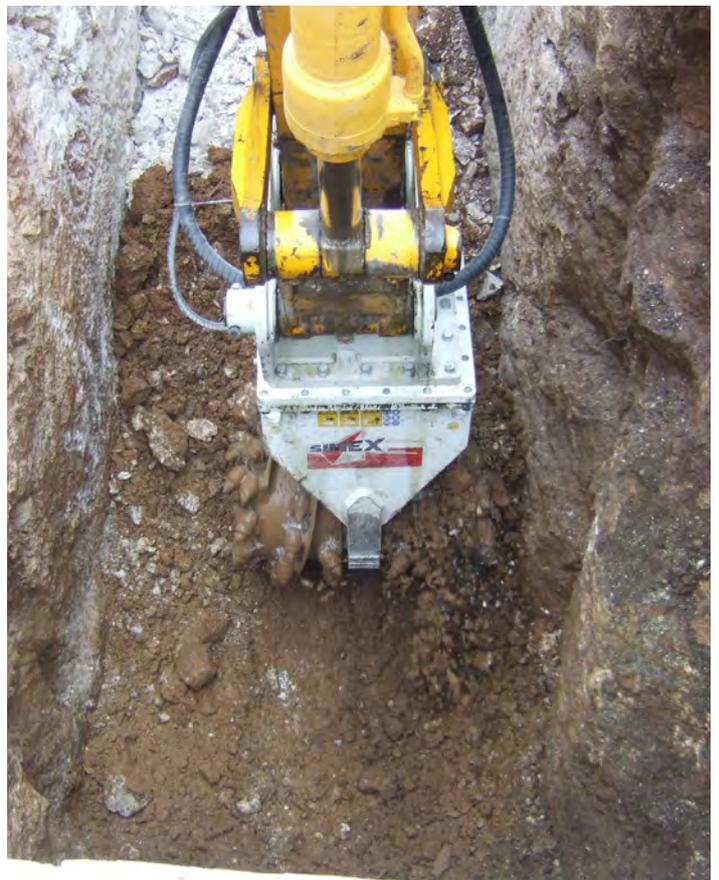
TYPES OF APPLICATION

TRENCHING

Simex Cutter Heads can dig much narrower trenches compared to conventional excavation systems. The spoil has a reduced size and is ready to be reused immediately on the work site, leading to savings in time and money.

Simex Cutter Heads can go down deep without widening the trench. The square holes of the mounting bracket allow 90° rotation of the attachment, serving to reduce overall dimensions when used longitudinally.

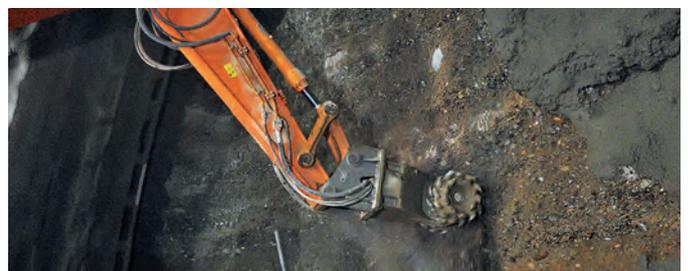
On request, available with 360° hydraulic rotation.



TYPES OF APPLICATION

TUNNELING

Compared to percussion systems, Simex Cutter Heads allow safer operation in tunnels. The absence of vibrations reduces the risk of collapse to a minimum.

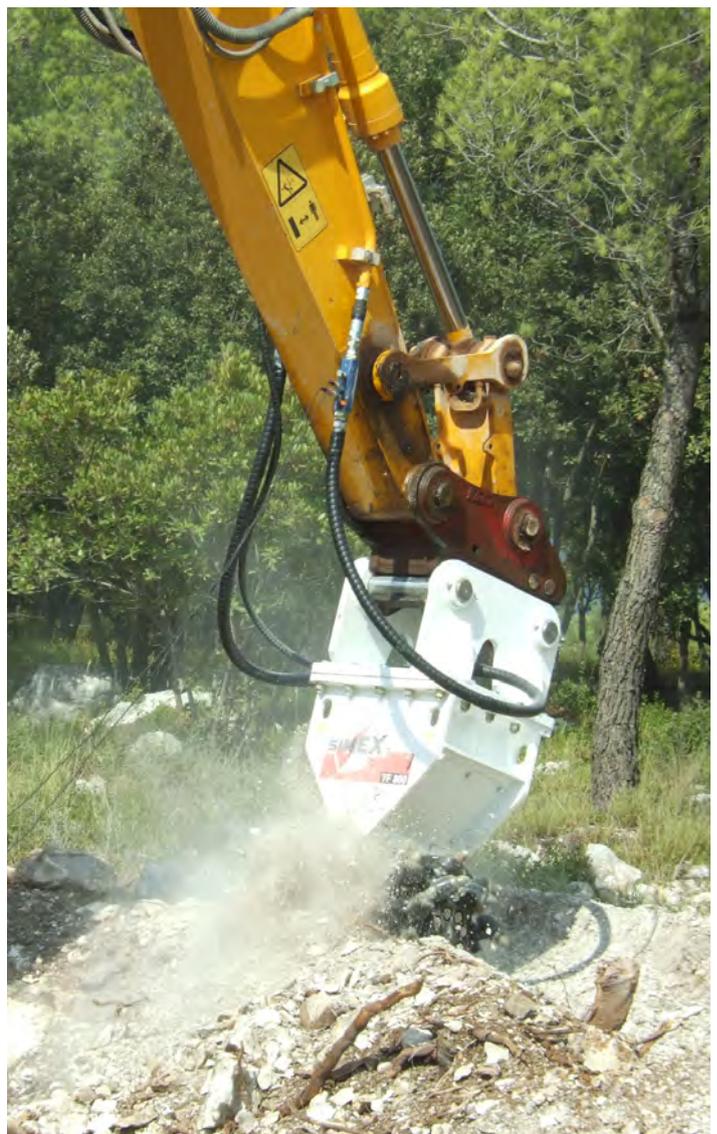


TYPES OF APPLICATION

EXCAVATION AND SOIL RECLAMATION

Excavation and soil reclamation using Simex Cutter Heads produces a high level of finishing and quality of the end result. Cutting via the drums allows removal of a specific and controlled thickness of material until the required depth is reached.

Small-sized spoil needs no further process to reduce dimensions.



TYPES OF APPLICATION

UNDERWATER WORKS

Utilized under water, so without being visible, Simex Cutter Heads can work on a wide excavation face typical of milling operations, improving the conditions and productivity of the job.

They are also designed to be watertight for operations performed down to a depth of 30 meters.

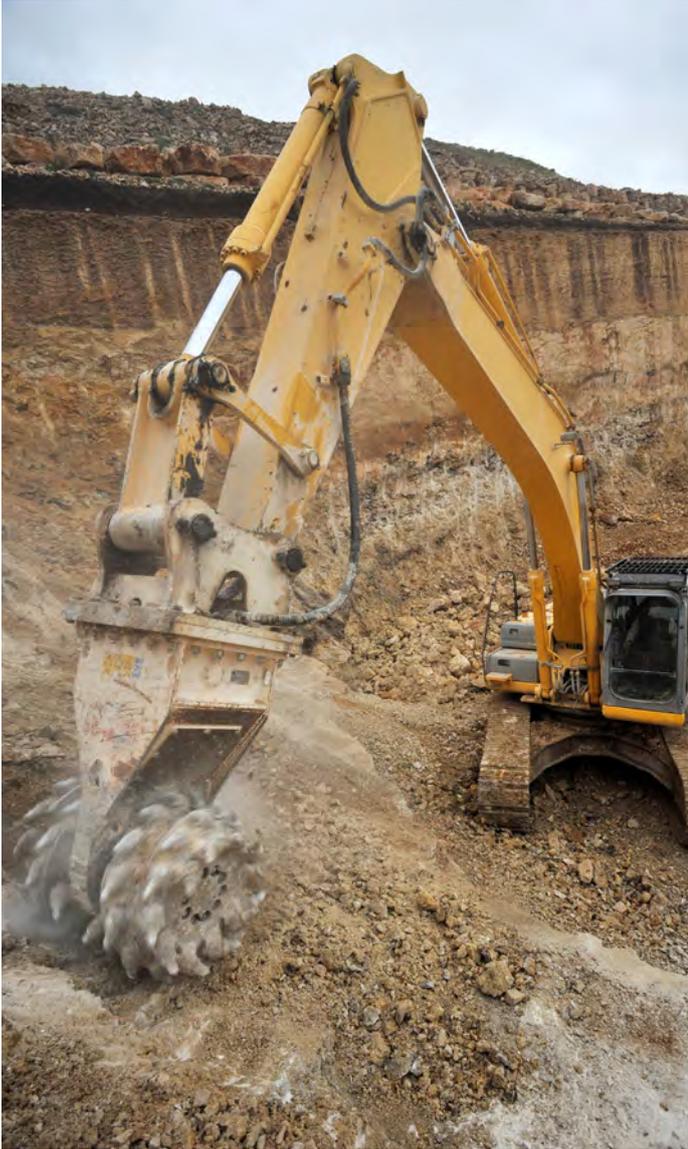


TYPES OF APPLICATION

QUARRYING

Operating Simex Cutter Heads in quarries allows production of small and uniform spoil and avoids the use of primary crushing systems.

According to the types of material to be milled, Simex can supply drums and special teeth.



TYPES OF APPLICATION

DEMOLITIONS

Their precision in performing demolition, whether partial or total, along with their low vibrations make Simex Cutter Heads optimum attachments also for controlled demolitions of buildings, viaduct curbs, walkways and pavements.



TYPES OF APPLICATION

WALL PROFILING AND RESURFACING

Simex Cutter Heads excel in profiling walls and all types of surfaces, leaving them ready to receive the next treatment. Using the model WP drum significantly increases the degree of finishing.

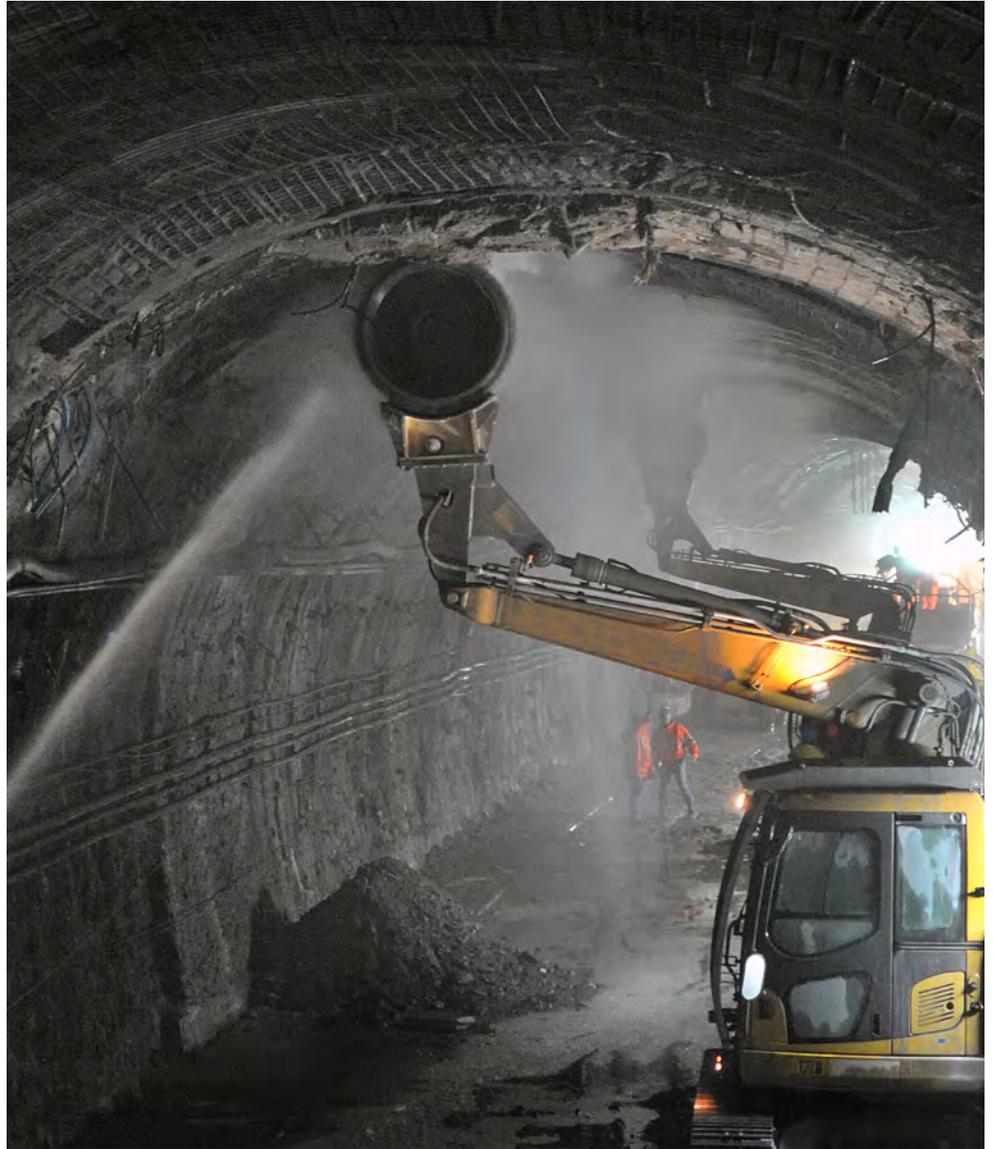


TYPES OF APPLICATION

SPECIAL APPLICATIONS

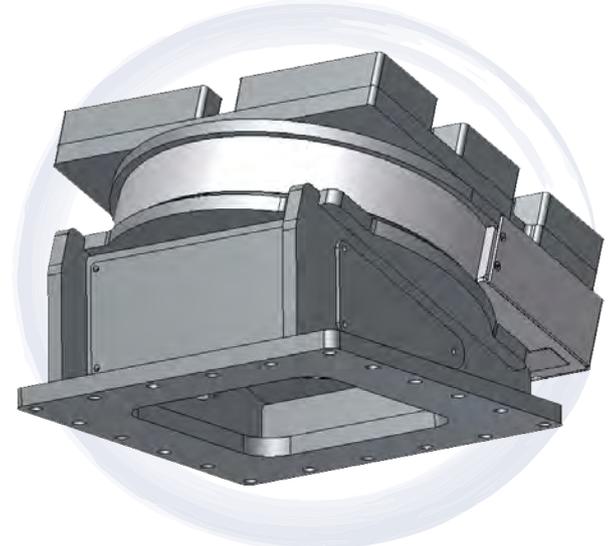
The versatility of Simex Cutter Heads makes them highly useful for special jobs:

- milling stumps and roots by using special teeth
- excavating niches and ducts in tunnels by substituting drums with special disks
- performing jobs at extremely low temperatures, on icy ground and permafrost



A CUTTER HEAD FOR ANY APPLICATION

360° HYDRAULIC ROTATION (OPTIONAL)



- 360° continuous hydraulic rotation
- Maximum precision
- Higher productivity
- With hydraulic rotation, the operator can always find the ideal work position.

Technical Data:

		TF200	TF400
RECOMMENDED EXCAVATOR WEIGHT		2.5 - 7	6 - 12
WIDTH HP DRUMS - standard (A)	mm.	565	625
WIDTH GP DRUMS - optional (A)	mm.	-	-
WIDTH WP DRUMS - optional (A)	mm.	650	750
WEIGHT WITHOUT BRACKET (1)	kg.	300	470
HYDRAULIC MOTOR POWER	kW (hp)	27 (37)	37 (50)
MAX. OUTPUT TORQUE	kNm	2.5	4.6
CUTTING FORCE	kN	13.5	20.3
MAX. OIL PRESSURE (2)	bar	350	350
REQUIRED OIL FLOW (3)	l/min	45 - 80	65 - 120
DIAMETER HP DRUMS (B)	mm.	380	450
HEIGHT WITHOUT BRACKET (C)	mm.	770	900
DISTANCE BETWEEN DRUMS (E)	mm.	110	130
TOOL HOLDER DIAMETER	mm.	20	22

(1) User is responsible for ensuring that the equipment meets the prime mover's specifications and weight requirements. (2) The cutting force decreases

DRUMS AND TEETH for every application

Designed to achieve highest efficiency for the required application.



HP drum (standard)

Thanks to special layout of teeth and reduced width, penetrates deep even into hard materials.



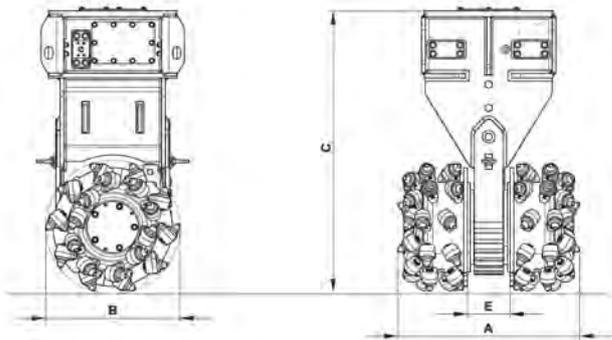
GP drum (optional)

Drum featuring larger width, recommended for profiling walls in various types of jobs.



WP drum (optional)

Special drum for finishing and profiling.



Standard tooth for mixed materials



Tooth for milling very hard materials.



Tooth for WOOD.

MULTIPLE TOOTH GEOMETRIES AVAILABLE FOR MILLING DIFFERENT MATERIALS.

TF600	TF850	TF1100	TF2100	TF2500	TF3100
9 - 16	14 - 22	20 - 34	28 - 45	35 - 55	45 - 70
700	800	850	950	1000	1250
-	900	950	1100	1150	1350
850	1000	1200	-	-	-
640	1140	1465	2410	2700	3650
50 (68)	61 (83)	87 (118)	112 (152)	140 (190)	175 (238)
6.9	10.6	17.5	22.7	31.7	42.5
27.6	35.2	53.4	64.3	83.7	114.5
350	350	350	380	380	380
90 - 150	130 - 190	170 - 250	240 - 340	280 - 400	350 - 500
500	595	660	750	750	750
960	1250	1310	1575	1675	1770
130	150	160	175	250	300
22	38/30	38/30	38/30	38/30	38/30

as the pressure and/or oil capacity reduces. (3) Number of revolutions and cutting speed decrease as the oil flow reduces.

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Materials and technical data subject to change without prior notification. The equipment illustrated can be fitted with further equipment and accessories available on request only.

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