TF

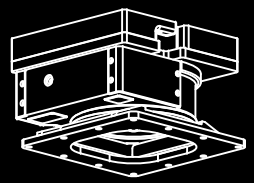
Mini Exc. | Midi Exc. | Excav. | Backhoe — 2.5 - 75 TON

DOUBLE-DRUM CUTTER HEADS

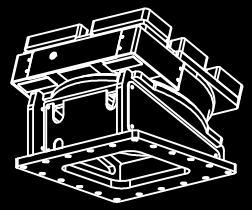
TF 200 | TF 400 | TF 650 | TF 850 | TF 1100 | TF 2100 | TF 2500 | TF 3100

WATCH THE VIDEO

Scan the QR code using your smartphone



PARALLEL HYDRAULIC ROTATION for TF 400 and 650.



TILTED HYDRAULIC ROTATION for TF 850/1100/2100.

learn more on page 11

INCREASED PRODUCTIVITY AND MAXIMUM PRECISION: cutter head can be rotated 90° with respect to mounting bracket (thanks to square holes of coupling plate).

FILTER ON FEED LINE prevents impurities from **entering the motor**.

Hose hook-up on both cabin side (standard) and front.

MILLED MATERIAL IS DISCHARGED FROM THE TRENCH WITHOUT GETTING STUCK IN THE FRAME due to special shape.

DRUMS AND TEETH FOR ANY APPLICATION, designed to achieve the highest performance according to the required application. Multiple tooth geometries available for working on different materials.

HIGH TORQUE AND HIGH PERFORMANCE guaranteed by **integrated high displacement hydraulic piston motor in direct drive with the drums.**
Shaft transmits motion only and bears no load thanks to double support bearings for each drum.

REPLACEABLE ANTI-WEAR PLATES

MECHANICAL GASKETS FITTED ON DRUMS SEAL AGAINST DUST also when attachment is submerged into the ground, even in muddy conditions.

SIMEX • patented •

The Simex TF double drum cutter heads are ideal for trenching, profiling rock and cement walls, tunnelling, quarrying, demolition, dredging, finishing operations and underwater works. They are highly effective where conventional excavation systems are too weak and percussion ones have little effect.

AVAILABLE DRUMS:

HP (STANDARD)
Allows deep penetration even into hard materials

GP (OPTIONAL)
Recommended for wall profiling and various types of jobs

WP (OPTIONAL)
Special drum for finishing and profiling

HPP (OPTIONAL)
Special drums for mixing soils

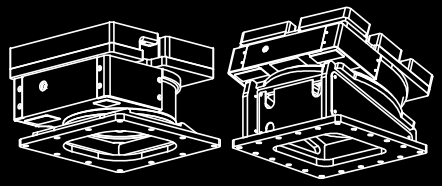
AVAILABLE TEETH:

STANDARD
For mixed materials

OPTIONAL
For milling very hard materials

OPTIONAL
For wood

OPTIONAL
For tilling



360° HYDRAULIC ROTATION

Hydraulic rotation allows the operator to always find the ideal working position. Increased productivity.
Maximum precision.

learn more on page 11

UTILITIES

TF 850 with 360° hydraulic rotation. *In trenching, hydraulic rotation allows operator to find the ideal working position.*

CONDUITS

TF 850. *Trench excavation for laying underground utilities and pipes.*

VERTICAL PROFILING

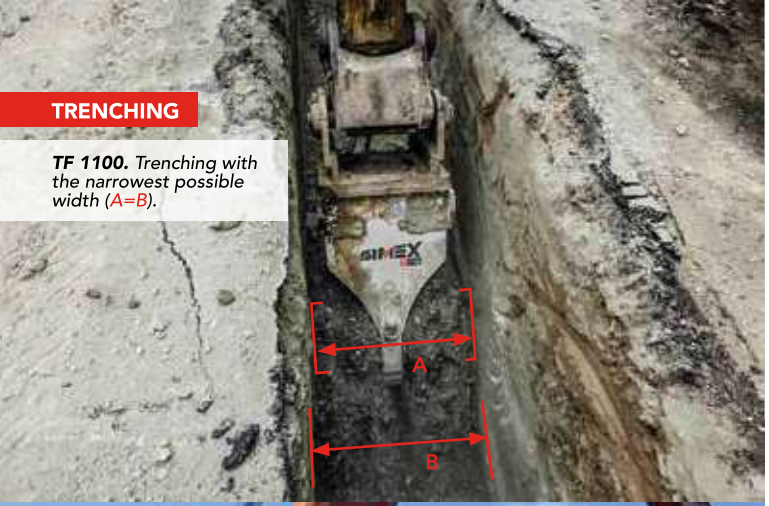
TF 400. *Precision vertical milling for building works.*

TUNNELLING

TF 1100. *Removal of deteriorated concrete for later shotcrete application.*

QUARRYING

TF 1100. *Extraction of calcium carbonate in limestone quarry.*



TRENCHING

TF 1100. *Trenching with the narrowest possible width (A=B).*

UNDERWATER WORKS

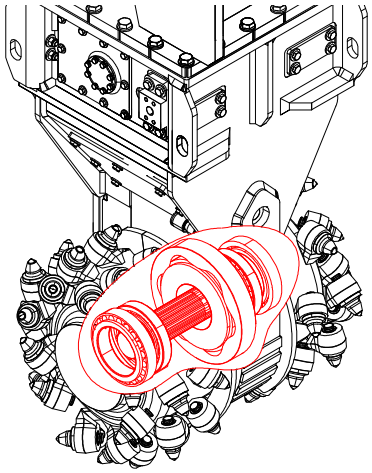
TF 3100. *Trench excavation for laying water mains pipes.*

CRUSHING TREE TRUNKS

TF 850. *Crushing tree trunks with special teeth made for wood.*

DIRECT DRIVE AND HIGH TORQUE

The direct drive hydraulic piston motor directly delivers power to the drums without mechanical transmission components, thus guaranteeing high torque and high performance.
Shaft transmits motion only and bears no load thanks to double support bearings for each drum.

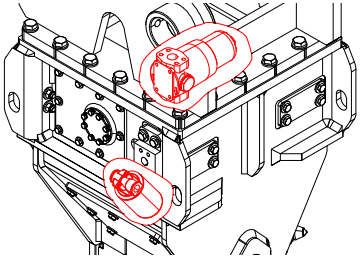


DESIGN AND HIGH PERFORMANCE

The frame's particular shape allows reducing the distance between the drums improving the total working width. Furthermore, milled material is discharged from the trench without getting stuck in the structure due to perfect symmetry of the frame, which also allows hoses to be hooked up at sides and front (except for TF 200 and TF 400 models). Replaceable anti-wear plates. In addition, the mechanical gaskets fitted on the drums ensure maximum resistance to dust and any external agents, allowing the equipment to work completely submerged into the ground or water up to a maximum depth of 30 metres.

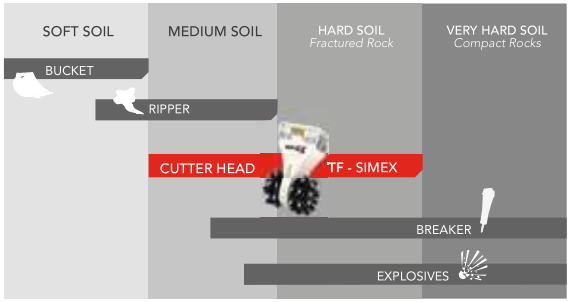
MAXIMUM PROTECTION AND ZERO ROUTINE MAINTENANCE

Filter on feed line and filter on drainage line, both integrated, protect the hydraulic system from any external impurities, which can damage or reduce the performance of both the excavator and the equipment. (In TF 200 and TF 400 models the filter is only on the feed line). Additional protection from pressure peaks is ensured on drainage line by an accumulator and a fuse, an on feed line by a flow limiting valve. The latter also allows easy coupling with various excavator models and sizes, facilitating installation and calibration operations. The direct drive motor does not require lubrication or other types of routine maintenance.



A TRUE ALTERNATIVE TO TRADITIONAL SYSTEMS

The TF cutter heads are especially useful where conventional excavation systems are too weak and percussion systems have little effect. The low vibrations and seamless milling make the TF cutter head particularly suitable in applications requiring selective breaking of the rock mass, while at the same time producing crushed material of a particle size suitable for on-site reuse or transport elsewhere.

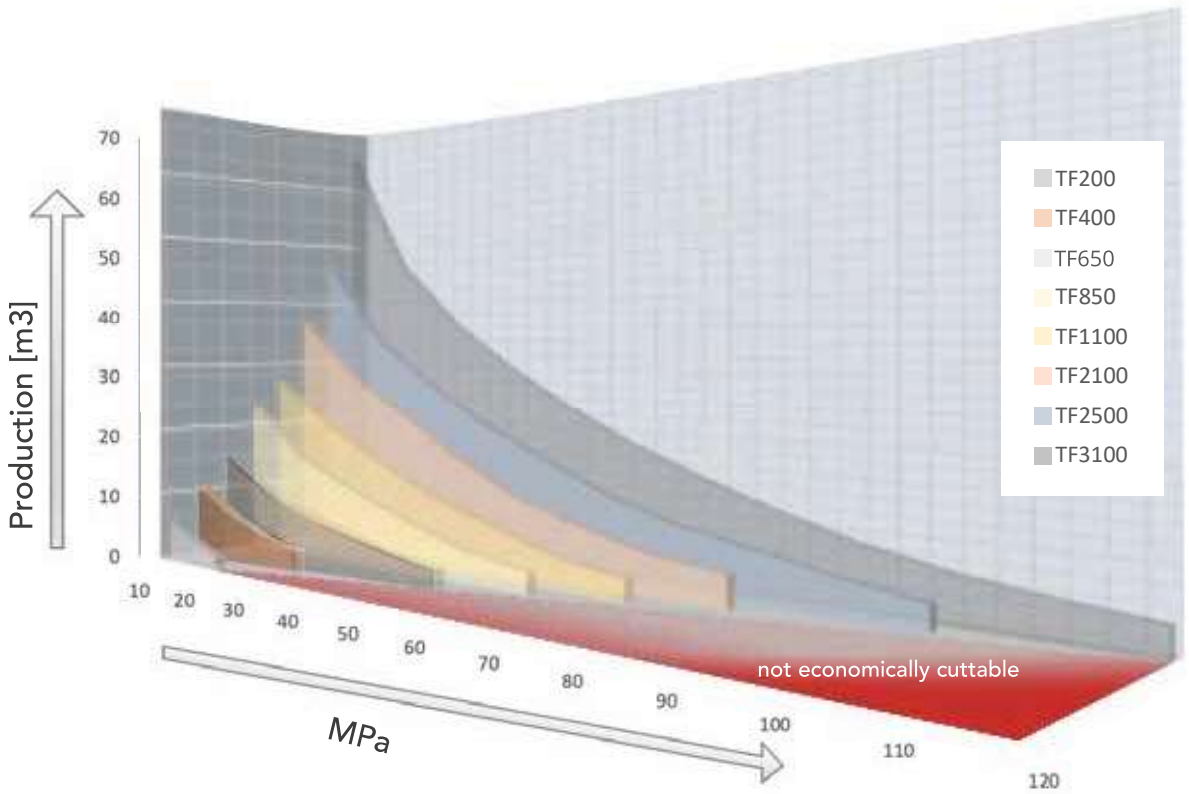


PRODUCTIVITY ESTIMATE

RATIO BETWEEN CUTTING EFFICIENCY AND COMPRESSIVE STRENGTH

The graph below gives an approximate indication of the ratio between cutting efficiency of each cutter head model in optimal conditions and the unconfined compressive strength of the rock.

Since many variables exist regarding the material (**fracturing, weathering, ductility**, etc.), the prime mover and the operability, the ratio should be understood as only an approximation of cutting efficiency. The actual production may be estimated after all noted variables are taken into account.



CALCULATION OF HOURLY PRODUCTION

Our team of experts has created a tool to help you calculate the theoretical hourly production, guiding you in choosing the most appropriate drum cutter for the type of material to be worked. Scan the QR code on the side with your smartphone to access the calculator for hourly production.

BUILDINGS AND INFRASTRUCTURE

TF 3100. *Rock wall profiling for later real estate development.*

EXTREME CONDITIONS

TF 1100*. Trenching on frozen ground in permafrost conditions (-40°).*

EARTHWORKS

TF 850*. Excavation for the construction of foundations for pillars.*

PRODUCTIVITY: A FEW APPLICATION EXAMPLES

TRENCH EXCAVATION FOR LAYING UNDERGROUND UTILITIES

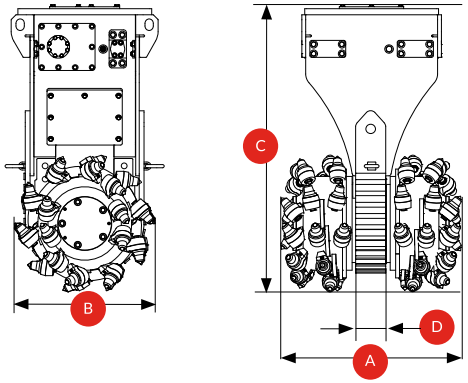
Job: Trench excavation with TF 850 for later connection to sewers
Material: metamorphic rock with schist texture
Forward speed: 10 linear metres per hour, depth: 80 cm.

PROFILING NATURAL WALL IN CONSTRUCTION FIELD

Job: profiling natural wall in a construction site with TF 2100 and TF 3100
Material: hard and compact sedimentary conglomerate, 80-90 MPa
Production: 10-15 m3/h

DEMOLITION OF INDUSTRIAL FLOORS

Job: Dismantling of industrial concrete flooring, 25 MPa with TF 2100
Material: Reinforced concrete
Production: 40-45 m2/h



DOWNLOAD THE UPDATED TECHNICAL BROCHURE

Scan the QR code using your smartphone

TECHNICAL DATA		TF 200	TF 400	TF 650	TF 850	TF 1100	TF 2100	TF 2500	TF 3100
Recommended excavator weight	ton *lbs*	2.5 - 7 *5500 - 15500*	6 - 12 *13000 - 26500*	9 - 16 *19800 - 35200*	14 - 22 *30800 - 48500*	20 - 34 *44000 - 75000*	28 - 45 *61700 - 99000*	40 - 55 *88000 - 121000*	50 - 75 *110000 - 165400*
Weight without mounting bracket *(1)*	kg *lbs*	300 *660*	470 *1050*	650 *1430*	1100 *2420*	1340 *2950*	2380 *5240*	2700 *5950*	2940 *6470*
Nominal power	hp (kW)	40 (30)	55 (40)	68 (50)	95 (70)	122 (90)	163 (120)	205 (150)	250 (185)
Rotation torque	kNm *lbf.ft*	2.8 *2080*	5.1 *3760*	7.4 *5450*	12.1 *8920*	20 *14750*	26.7 *19700*	36.1 *27600*	48 *35400*
Cutting force	kN *lbf*	15.1 *3400*	22.5 *5100*	30.5 *6850*	40.2 *9000*	61 *13700*	71 *16000*	96.4 *21600*	128 *28700*
Maximum pressure *(2)*	BAR *psi*	350 *5100*	350 *5100*	350 *5100*	400 *5800*	400 *5800*	400 *5800*	400 *5800*	400 *5800*
Required oil flow	l/m *gpm*	45 - 80 *12 - 21*	65 - 120 *17 - 32*	90 - 150 *24 - 40*	140 - 190 *37 - 50*	170 - 250 *45 - 66*	240 - 340 *63 - 90*	280 - 400 *74 - 105*	350 - 500 *92 - 132*
360° Hydraulic rotation optional		-	yes	yes	yes	yes	yes	-	-
Drum width (HP) standard (A)	mm *inch*	565 *22*	625 *25*	700 *28*	800 *32*	865 *34*	965 *38*	1000 *40*	1270 *50*
Drum width (GP) optional (A)	mm *inch*	-	-	-	890 *36*	1000 *40*	1100 *43*	1150 *45*	1350 *53*
Drum width (WP) optional (A)	mm *inch*	650 *26*	750 *30*	850 *34*	920 *36*	1200 *47*	-	-	-
Drum diameter HP (B)	mm *inch*	380 *15*	450 *18*	500 *20*	595 *24*	660 *26*	*750* *30*	750 *30*	750 *30*
Height without mounting bracket (C)	mm *inch*	840 *33*	970 *38*	1005 *40*	1270 *50*	1335 *53*	1570 *62*	1675 *66*	1825 *72*
Drum distance (D)	mm *inch*	110 *4*	130 *5*	135 *5.3*	180 *7*	190 *7.5*	250 *10*	250 *10*	330 *13*
Tooth holder diameter	mm *inch*	20 *0.8*	22 *0.9*	22 *0.9*	38/30 *1.5/1.2*	38/30 *1.5/1.2*	38/30 *1.5/1.2*	38/30 *1.5/1.2*	38/30 *1.5/1.2*

(1) The installer is responsible for ensuring that the equipment meets the excavator's specifications and weight requirement.
(2) Torque and cutting force decrease with lowered operating pressure.
Simex does not accept responsibility or liability for the information provided. Technical modifications may vary without prior notice.