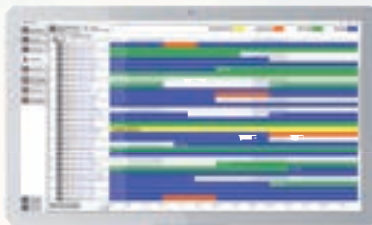


Your specialist for

Automation and Digitisation in Civil Engineering and Road Construction



www.MTS-online.de

Product Catalogue
(Version 04/2019)



Be on the safe side with us

Our Modular Solution Kit



MTS excavator filter

Do you want to know which MTS products are suitable for your excavator? Then use the excavator filter on our website. Simply enter your tonnage and you will be shown suitable products.



All new products and additional information can always be found on our website:
www.MTS-online.de

Attachment compactor

Standard compactor (V series)

Interchangeable adapter compactor (WA series)

Universal compactor (US and UT series)

Soil treatment

Rotary mixer

MTS binding agent spreaders (e.p.m)

Limestone rake

Digital construction site - BIM: MTS toolbox

3D machine control, construction work

Digital measurement and accounting

Stake-out and survey work

Planning and data processing

Device management and requirements planning

Tiltrotator & quick-change unit

Tiltrotator

OilQuick quick-change unit

All major change systems on request

Rock cutter

MTS rock cutter

MTS special

Pipe shifting adapter

EGLI hydraulic magnet

EGLI grabber

Driller-core drilling unit

MTS rental park

Attachment compactor

Demolition technology

Soil treatment

Grabber

Milling unit

3D excavator control system



The new V series

MTS attachment compactor





True all-rounder

MTS attachment compactor

MTS attachment compactor True all-rounder



▶ **the product video**
Simply scan the QR code using your smartphone and experience the interchangeable adapter-compactor in action



MTS attachment compactors have been awarded the type examination certificate.

Eccentric and narrow design
Higher range and good side clearance

Sturdy MTS rotary mechanism
No turning away, slide-bearing support

Optional: Mechanical pivoting device
The "Wrist" for the excavator arm

Low construction height
Even below obstacles and compaction in shoring systems

REVOLUTIONARY: Load assistant
Detection of pressing force from the carrier

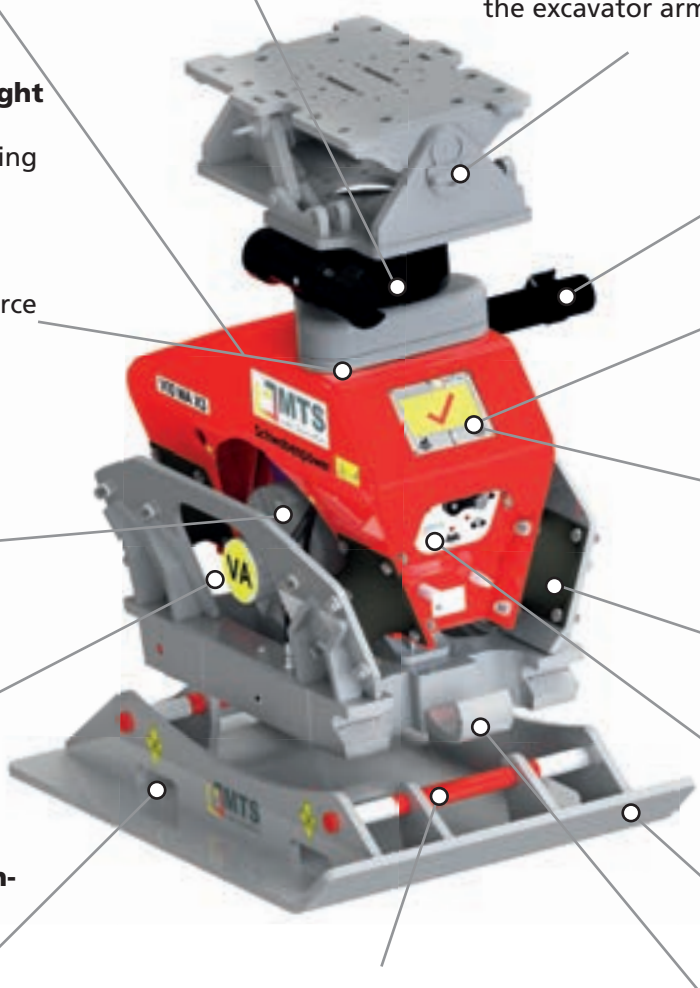
High pressure drive motors
Extended service life

Regulated hydraulic flow rate
Constant driving power

Open design
No dirt traps

Leakage protection valve & hydr. flow control valve
For increased safety

SMART: Fork-lift truck holding fixture
Seamless transport with the fork-lift



Document box
All documents required for the add-on device can be found here.

EXTREMELY POWERFUL: X switching levels
Frequency and impact power can be selected directly from the excavator

REVOLUTIONARY: Compaction assistant
Indicates when the end of the compaction has been reached

Optimally arranged metal rubber buffer
Extended service life, more depth effect

Protected hand lever position
for functional selection

Strong add-on plate
dampens vibrations

Safety catch hook

Optional: Interchangeable adapter
Change of add-on plates within seconds

Our "Special equipment"

A display screen with three assistance functions

A display system with three functions: The display on the rear side supports the machine operator with optimum compaction using an intuitive set of symbols..



COMPACTION ASSISTANT (VA)

Reports the end of compaction



LOAD ASSISTANT (ALA)

Checks the present load



FREQUENCY CONTROL (FQ)

Correct frequency during compaction

The three switching levels

X1

100 % impact force at 38 Hz
Standard setting for all soil types, suitable for cohesive soils.

X2

60 % impact force at 45 Hz
for use in the line zone: Reduced impact force - tamping compensation.

X3

100 % impact force at 60 Hz
Comfort setting: High frequency, less vibration on the excavator and on buildings. Suitable for cohesive and non-cohesive soils.

Further product solutions

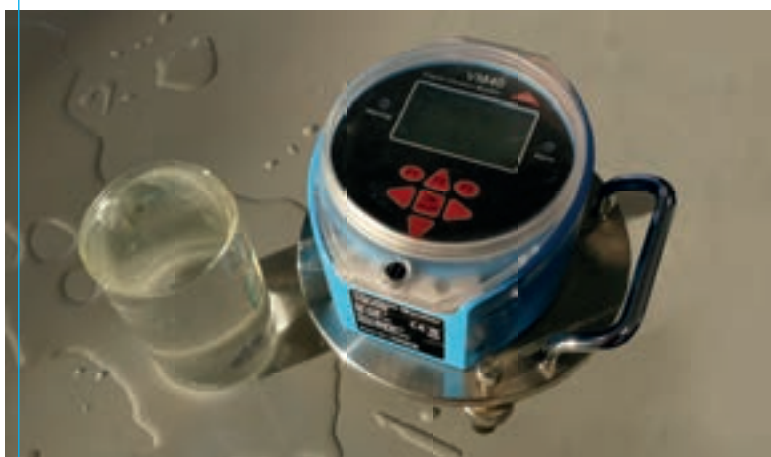
For even more safety and comfort



Filling layer assistant (SLA)

Checks the filling layer height

End of subsidence: The new filling layer assistant is a feature of the MTS-NAVI (www.3D-Baggerssteuerung.de) and provides you with the current height of your filling layer at all times. This means that even fillings heights are no longer a "matter of feeling", but always under your full control.



Vibration monitoring unit (VM 40)

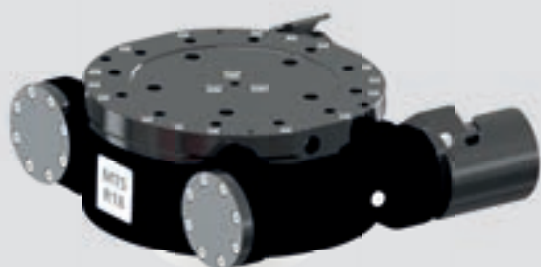
Warns of building vibrations

You can use this unit to measure the vibrations in buildings (in accordance with DIN 4150-3) in real time during compaction work in built-up areas. A signal will be sent to your phone as soon as there is a danger.

MTS rotary mechanisms

R6-, R9-, R18 rotary mechanism

MTS rotary mechanisms facilitate precise positioning to hard-to-reach places.



- ✓ **Maximum self-locking**
No turning away of the attachment compactor
- ✓ **Maintenance-free**
Self-lubrication
- ✓ **Sturdy and simple construction**
Maximum stability in use
- ✓ **Safe positioning**
Optimum transmission ratio, high torque

Rotary mechanism	MTS R6	MTS R9	MTS R18
Max. holding torque [Nm]	6000	9000	18000
Perm. radial force [kN] relative to 1 m	85	165	165
Perm. axial load [kN]	170	230	230



*The right attachment
for every application*

MTS Interchangeable Adapter Compactor

We offer the right attachment for every application to fully prepare your attachment compactors for all construction site tasks.

A hydraulic interchangeable adapter (WA) allows you to change between different add-on plates in just a few seconds, which will perfectly equip your compactors for all compaction requirements in next to no time:

- ✓ **Interchangeable plates (64-200 cm)**
- ✓ **Sheepsfoot (plate)/ Compactor wheel**
- ✓ **Compactor foot**
- ✓ **Sheet piling terminal**
- ✓ **Double-foot (plate)**
- ✓ **Compactor wheel**
- ✓ **Your plate of choice?!**
Individual special design

For special requirements, we also produce special plates for your individual construction site tasks.

Just ask us:

konstruktion@MTS-online.de

MTS interchangeable adapter compactor

The "Swiss Army knife" among the attachment compactors



Product video
Simply scan the QR code using your smartphone and experience the interchangeable adapter-compactor in action

Interchangeable plate

From 64 to 200 cm in width



Width [cm]	64	80	100	120	140	160	200
V8WA / V10WA	—	✓	✓	✓	✓	✓	✓
V6WA	✓	✓	✓	✓	✓	—	—

Sheepsfoot (plate)

Ideal for cohesive soils



Width [cm]	64	80	100
V8WA / V10WA	—	✓	✓
V6WA	✓	✓	—

Double-foot (plate)

For the pipeline zone



Model name corresponds to SB pipes DN	DFP 150-400	DFP 150-300	DFP 300-600	DFP 600-900	DFP 900-1200
Attachment compactor	V6WA	V8WA / V10WA	V8WA / V10WA	V8WA / V10WA	V8WA / V10WA
Adjustment range [cm]	30-81	25-65	60-100	100-140	138-180

Compactor foot

Pin-point compaction



Foot height [cm]	80	100	200
Foot width [cm]	20	40	25
V8WA / V10WA	—	✓	✓
V6WA	✓	✓	—

*All compactors can be mounted eccentrically and centrally.

Sheet piling terminal

Flexible driving and extracting



Clamping force	Clamping jaw
30 to at 200 bar	4 cm

Compactor wheel

Compacting cohesive soils



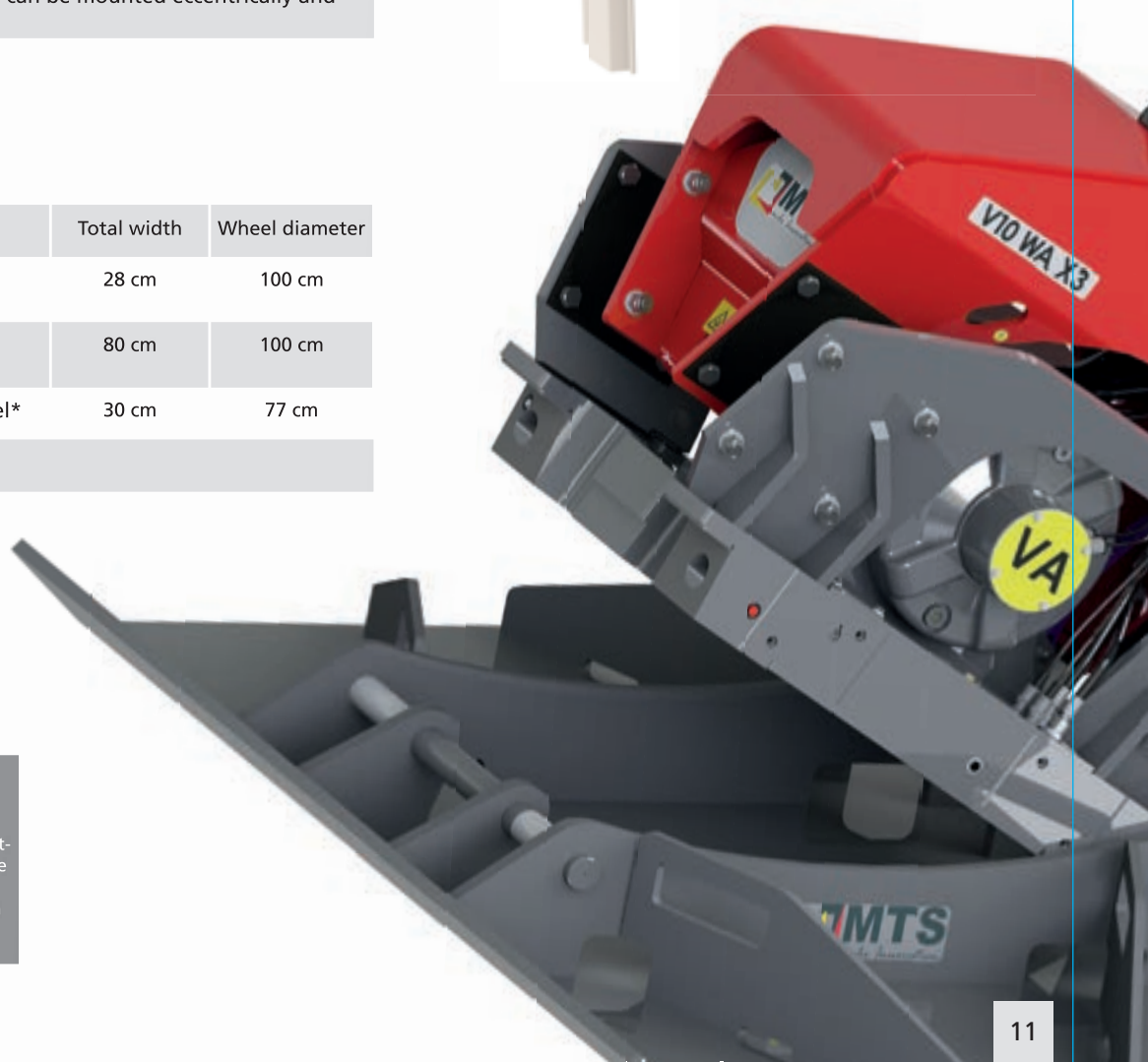
	Total width	Wheel diameter
V8/V10 single wheel*	28 cm	100 cm
V8/V10 double wheel*	80 cm	100 cm
V6 double wheel*	30 cm	77 cm

*with scraper



Product video

Simply scan the QR code using your smartphone and experience the interchangeable adapter-compactors in action



*The universal genius
for more safety during excavation
work*

MTS UNIVERSAL COMPACTOR



Product video

Simply scan the QR code using your smartphone and experience the interchangeable adapter-compactors in action

US 8-2 The very highest standard

Working with the Universal Compactor Standard (US) replaces the arduous and high-risk process of compacting using a hand-operated tamper where narrow trenches and pits pose particular challenges to the construction of the compactor. The slimline design of the manoeuvrable attachment device ensures maximum side clearance and optimum handling, while its specific shape also guarantees optimum compaction even in places that were previously difficult to access.

UT 8-2 The clever telescope solution

Special depths require specific solutions. This is where the universal compactor telescope comes in (UT). Its telescopic upper part can be infinitely adapted to any construction site requirements. Just like the standard model, the telescopic compactor also guarantees accident-free operation without exhaust pollution.

► The categorisation of attachment compactors

Small attachment compactors

predominantly for the pipe zone
Plate width up to 40 cm
Centrifugal force up to 25 kN
Model: US / UT / V3 / V3mini

Medium attachment compactors

above the pipeline area
from 1 m covering depth
Plate width up to 75 cm
Centrifugal force up to 75 kN
Model: V4 / V6 / V7

Large attachment compactor

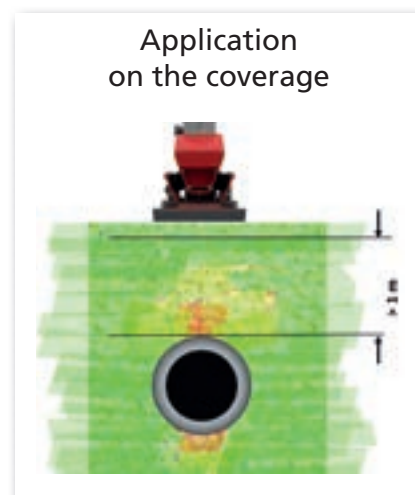
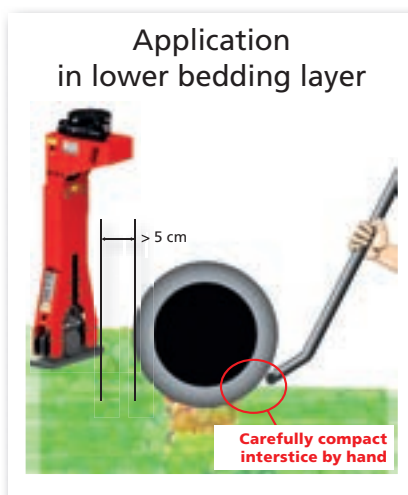
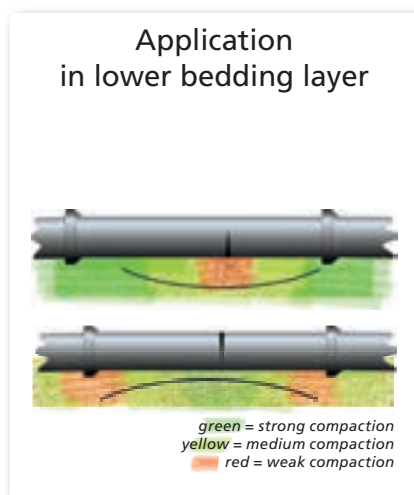
above the pipeline area
from 1 m covering depth
Plate width > 75 cm
Centrifugal force > 75 kN
Model: V8 / V10



More information on the device type acc. DWA-A 139 can be found on page 18.

Professional compaction in pipe trenches

Application notes



More information on the professional compaction of pipe trenches can be found in our MTS Magazine "fokus automatisierung" (2018/2019 edition) on pages 26 and 27.

In comparison with conventional technology An example from practice



HAND-OPERATED

AUTOMATED

Personnel, equipment and material used:

- 1 specialist worker
- 1 excavator with operating unit
- 1 vibratory tamper 80 kg
- Non-cohesive to weakly cohesive soils
- Stb-pipe Ei DN 1400/2100

- 1 excavator with operating unit
- 1 MTS UT 8-2
- Non-cohesive to weakly cohesive soils
- Stb-pipe Ei DN 1400/2100

Functioning and requirements: Install layer by layer and compact a 3 meter pipe:

- Filling height 35 cm, corresponding to a installation layer of 30 cm
- Number of transitions: 3 pcs
- Number of layers: 10 pcs
- Usage duration per layer: 9 minutes

- Filling height 50 cm, corresponding to a installation layer of 43 cm
- Number of transitions: 2 pcs
- Number of layers: 7 pcs
- Usage duration per layer: 3 minutes

Total usage duration per pipe:

10 installation layers x 9 minutes = 90 minutes

7 installation layers x 3 minutes = 21 minutes



1.50 hours



0.35 hours

How MTS attachment compactors solve your problems

Sophisticated detailed solutions for all construction site requirements

Do you want . . .

... to drive in board piling and then extract again?

WA with sheet piling terminal



... to compact large areas?

WA with wide base plate



... to transport your attachment compactor safely?

Fork-lift truck holding fixture



... to compact in the pipeline zone stress-free?

WA with double-foot plate



... to also compact in shoring systems under obstacles?

Asymmetrical design



to compact cohesive soils outside the optimum water content?

WA with sheepsfoot (plate)



... to compact narrow trenches with a large compactor?

WA with compactor foot



How MTS attachment compactors solve your problems

Sophisticated detailed solutions for all construction site requirements

Do you want . . .

... to compact in the pipeline zone accident-free and safely?

Universal compactor



... to avoid damage to buildings and compact optimally?

MTS frequency control (FQ)

... to avoid subsidence?

MTS compactor assistant option (VA)



... to compact with little vibration?

X2 switching level



... to compact non-cohesive soils optimally?

X3 switching level



... to position your compactor in a controlled manner?

MTS rotary mechanism








... to compact in uneven terrain?

MTS tilting mechanism










TECHNICAL SPECIFICATIONS

	V3-mini	V3	V4	V6*	V7
					
Rec. Excavator size [to]	up to 6 tons	up to 6 tons	4-10 tons	8-15 tons	15-25 tons
Weight with rotary mechanism [Kg]	105	270	420	620	1,070
Base plate [mm]	290 x 600	340 x 865	440 x 1,045	640 x 1,155	730 x 1,425
Height [mm]	410.5	540	690	710	780
Filling height	10-30 cm / 1.5 to	20-40 cm / 2 to	30-50 cm / 2.5 to	40-60 cm / 4 to	50-70 cm / 5 to
MTS rotary mechanism	Mechanical	Gerotor	R6	R6	R9
X1 switching level					
Oil requirement [l/min]:	25-60	35(45 ¹)-80	55(70 ¹)-140	55(70 ¹)-140	150-240
Working pressure [bar]:	170-250	170-250	170-250	170-250	170-250
Centrifugal force [kN]:	8,5	15	25	53	68
Frequency [Hz]:	38	38 (60 ¹)	38 (60 ¹)	38 (60 ¹)	38
Optional additional equipment:					
X2 switching level					(√)
Oil requirement [l/min]:					165-240
Working pressure [bar]:	-	-	-	-	250-310
Centrifugal force [kN]:					40
Frequency [Hz]:					45
X3 switching level					(√)
Oil requirement [l/min]:					165-240
Working pressure [bar]:	-	-	-	-	300-310
Centrifugal force [kN]:					68
Frequency [Hz]:					60
Frequency control (FQ)	-	-	-	-	(√)
Load assistant	-	-	-	-	(√)
Compaction assistant	-	-	-	-	(√)
Interchangeable adapter (WA)	-	-	-	(√)	-

(√) = only as optional additional equipment
¹ = with 60 Hz version

*optionally as standard or interchangeable adapter compactor

TECHNICAL SPECIFICATIONS

	V7-city	V8*	V10*	US 8-2	UT 8-2
					
Rec. Excavator size [to]	15-25 tons	18-35 tons	21-45 tons	>6to	>6 tons
Weight with rotary mechanism [Kg]	1,080	1,220	1,310	485	630
Base plate [mm]	730 x 1,425	820 x 1,425	940 x 1,425	250 x 830	250 x 830
Height [mm]	780	790	810	1,330	1,860-2,360
Filling height	40-60 cm / 5 to	60-80 cm / 6 to	70-90 cm / 7 to	20-40 cm / 2 to	20-40 cm / 2 to
MTS rotary mechanism	R9	R9, R18	R18	R9	R9
X1 switching level					
Oil requirement [l/min]:	90-200	150-240	150-240	55-140	55-140
Working pressure [bar]:	250-310	200-250	200-250	120-250	120-250
Centrifugal force [kN]:	45	90	105	12	2
Frequency [Hz]:	38	38	38	38	8
Optional additional equipment:					
X2 switching level	(√)	(√)	(√)		
Oil requirement [l/min]:	120-200	135-240	135-240		
Working pressure [bar]:	150-310	250-310	250-310	-	-
Centrifugal force [kN]:	25	50	55		
Frequency [Hz]:	45	45	45		
X3 switching level	(√)	(√)	(√)		
Oil requirement [l/min]:	165-240	165-240	165-240		
Working pressure [bar]:	300-310	300-310	300-310	-	-
Centrifugal force [kN]:	45	90	105		
Frequency [Hz]:	60	60	60		
Frequency control (FQ)	(√)	(√)	(√)	-	-
Load assistant	(√)	(√)	(√)	-	-
Compaction assistant	(√)	(√)	(√)	-	-
Interchangeable adapter (WA)	-	(√)	(√)	-	-

(√) = only as optional additional equipment *optionally as standard or interchangeable adapter compactor

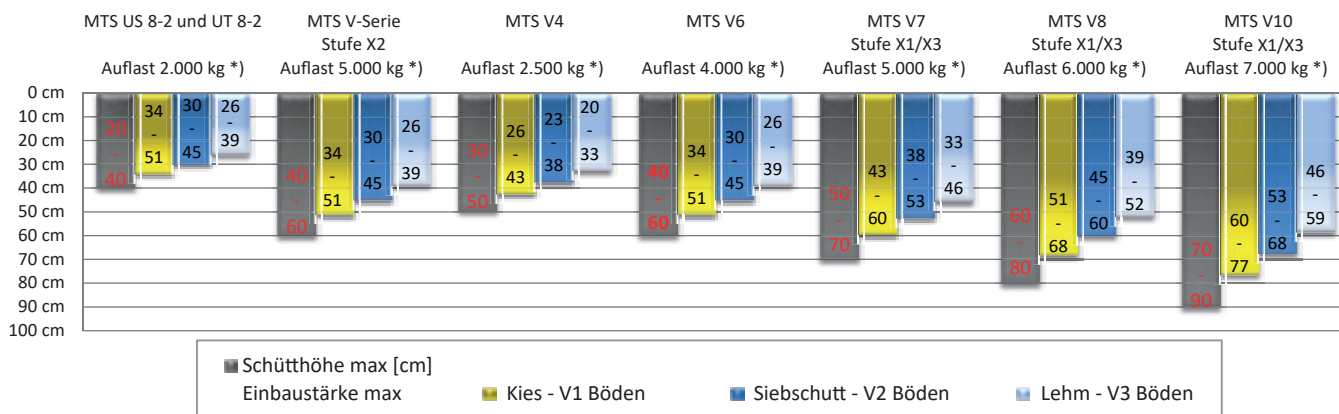
Professional Compaction

Knowledge for practical use

This page shows the specifications for a professional compaction in Germany.



Filling height & layer thicknesses for soils of class V1 to V3



Just contact your MTS consultant if you have any questions about the application.

Installation and testing of sewage pipes and channels

acc. DWA-A 139

Geräteart	Dienstgewicht (kg) oder Breite (m) und Fliehkraft (kn)	Verdichtbarkeitsklassen								
		V1			V2			V3		
		Eignung	Schütthöhe (cm)	Zahl der Übergänge/Einsatzzeit (s)	Eignung	Schütthöhe (cm)	Zahl der Übergänge/Einsatzzeit (s)	Eignung	Schütthöhe (cm)	Zahl der Übergänge/Einsatzzeit (s)

1. Verdichtungsgeräte (Leitungszone und bis 1 m oberhalb des Rohrscheitels)

Vibrationsstampfer	leicht	bis 30	+	bis 20	2 - 4	+	bis 20	2 - 4	-	-	-
	mittel	30 - 60	o	20 - 40	2 - 4	o	20 - 30	3 - 4	-	-	-
	schwer	60 - 100	o	30 - 50	2 - 4	o	20 - 40	3 - 4	-	-	-
Flächenrüttler	leicht	bis 100	+	bis 20	3 - 5	+	bis 15	4 - 6	-	-	-
	mittel	100 - 300	o	20 - 30	3 - 5	o	15 - 25	4 - 6	-	-	-
Anbauverdichter	klein	< 0,4 m = < 25 kN	+	20 - 40	5 s - 12 s	+	30 - 40	5 s - 12 s	-	-	-

2. Verdichtungsgeräte (ab 1 m oberhalb des Rohrscheitels)

Vibrationsstampfer	mittel	30 - 60	+	20 - 40	2 - 4	+	20 - 30	2 - 4	o	10 - 30	2 - 4
	schwer	60 - 100	+	30v50	2 - 4	+	20 - 40	2 - 4	o	20 - 30	2 - 4
Flächenrüttler	mittel	100 - 300	+	20 - 40	3 - 5	o	20 - 40	3 - 5	-	-	-
	schwer	300 - 750	+	30 - 60	3 - 5	o	30 - 50	3 - 5	-	-	-
Vibrationswalzen	schwer	600 - 8000	+	30 - 80	4 - 6	+	30 - 60	4 - 6	o	30 - 60	4 - 6
Anbauverdichter	mittel	0,4 m - 0,75 m 25 kN - 75 kN	+	30 - 75	5 s - 12 s	+	30 - 70	5 s - 12 s	o	30 - 70	8 s - 15 s
	groß	> 0,75 m > 75 kN	+	50 - 100	5 s - 12 s	+	50 - 100	5 s - 12 s	+	50 - 100	8 s - 15 s

+ = empfohlen

p = meist geeignet, muss auf den Einzelfall abgestimmt werden

- = ungeeignet



Source: taken from the "Arbeitsblatt DWA-A 139 „Einbau und Prüfung von Abwasserleitungen und -kanälen“, March 2019, Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V. (DWA)"



The Future of Soil Conditioning

MTS Soil Recycler





ObLX
For the homogenisation of soils

The Large MTS Soil Recycler

► **Machine documents at your fingertips**
Standard document box

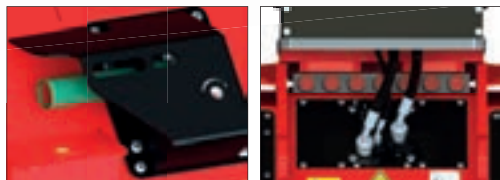
► **Easy to load**
Pallet fork holder

► **Long service life**
Wear-resistant steel of the welded beaters

► **Maximum transport safety**
Lashing eyelets on all sides

► **Protection against overloading the hydraulics**
Hydraulic protective valve

► **Continuous lubrication**
Central lubrication system and cartridge magazine (standard equipment)



► **Quick and easy change of shafts**
Same housing for C- and S-shafts

► **Simple homogenisation**
C-shaft

► **Quick and effective mixing in of binding agents**
C-shaft

► **Efficient sorting of oversized particles**
S-shaft

► **Fine screening with prescribed maximum grain size**
S-shaft (20 mm)

► **Additional option**
Counter cutter for more screening function/crimp plate for more crushing function

► **Simple and safe to transport**
see pictures right side →

IdFX
 Our "problem solver"
**The Small
 MTS Soil Recycler**



Attachment compactor

Soil treatment

► **Machine documents at your fingertips**

Standard Document box

► **Maximum transport safety**

Lashing eyes and pallet fork holder

► **Quick and easy change of modules**

Interchangeable frame

► **Fine screening**

Screening module (25-35 mm)

► **Screening & crushing**

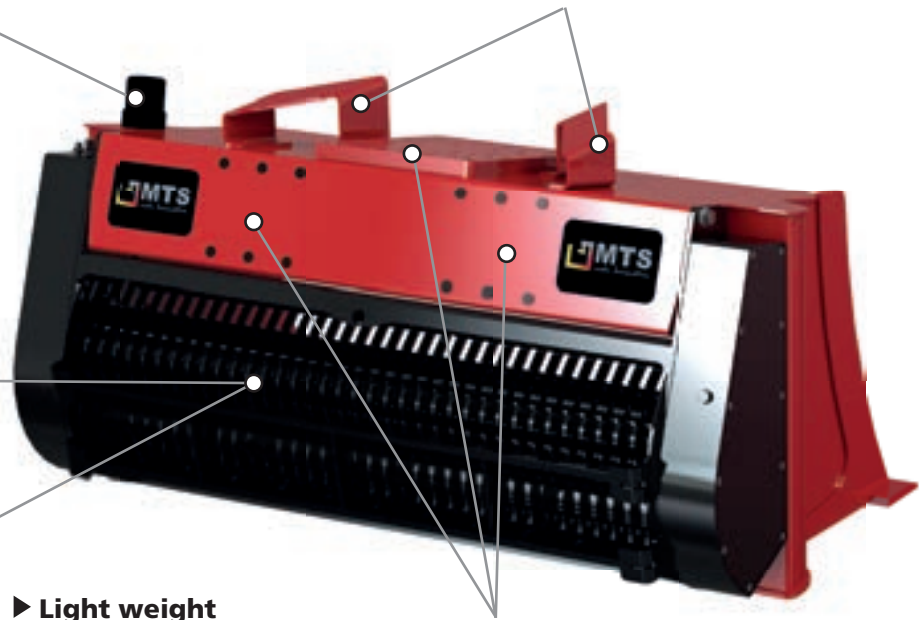
Screen-crush combination module (20-25 mm)

► **Light weight**

Optimum use on small carriers

► **Alternative add-on versions**

Attachable to excavator and loader





TECHNICAL SPECIFICATIONS

IdFX
Our "problem solver"

ObLX
For the homogenisation of soils

B90-2

B150-2

B120-3

B180-3

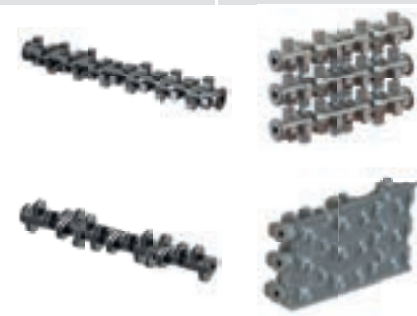


Recommended size of carrier [to]	Excavator	5-12 tons	8-15 tons	16-24 tons	20-28 tons
	Wheel loader	from 1.5 to	from 3 to	7-13 tons	9-15 tons
Weight [kg]		480 (depending on the type of disc used)	730	F80C: 1,540 F20S: 1,720	F80C: 2,050 F20S: 2,300
Width [cm]		125	185	157	213
Height [cm]		88	88	135	135
Depth [cm]		97	97	128	128
Bucket volume [m ³] (in accordance with CECE guidelines)		0.35	0.55	1.1	1.7
Screen surface [m ²]		0.40	0.65	0.99	1.45
Rec. oil quantity [l/min]		30-80	40-80	F80C: 200 F20S: 130	F80C: 200 F20S: 130
Maximum oil pressure [bar]		400	400	280	280

F80 C

Shaft type/module

F20S



*only for B90-2

*only for B150-2

*Both shaft types are suitable for both models

Simple module change

From fine screening to screening & crushing in just a few minutes



1. Position the module on the floor or a pallet. Then loosen the fittings and hydraulic hoses.

Now carefully swivel the frame away from the module.



2. Now move the frame over the second module in such a way, ...



3. ... that the pins of the frame engage the hooks of the module. Then swivel the frame over the module.



4. When the frame and module are completely brought together, screw them into place using the 2 screws. Then connect the hydraulic hoses.



5. Ensure that the screws are properly tightened and then perform a function test.



Simply scan the QR code with your smartphone and watch the module change in the video.

SCREEN module



- Topsoil screening
- Peat screening
- Mixing of sands, soils, fertilizers
- Soil stabilisation

Disc type	Thickness of disc	Distance between discs
F30S	16 mm	34 mm
F40S	16 mm	44 mm

SCREEN-CRUSH module



- Breaking up of organic material
- Breaking up of roof tiles, dry construction boards
- Breaking up of various clumped materials (e.g. de-icing salt preparation)
- Mixing & airing of compost

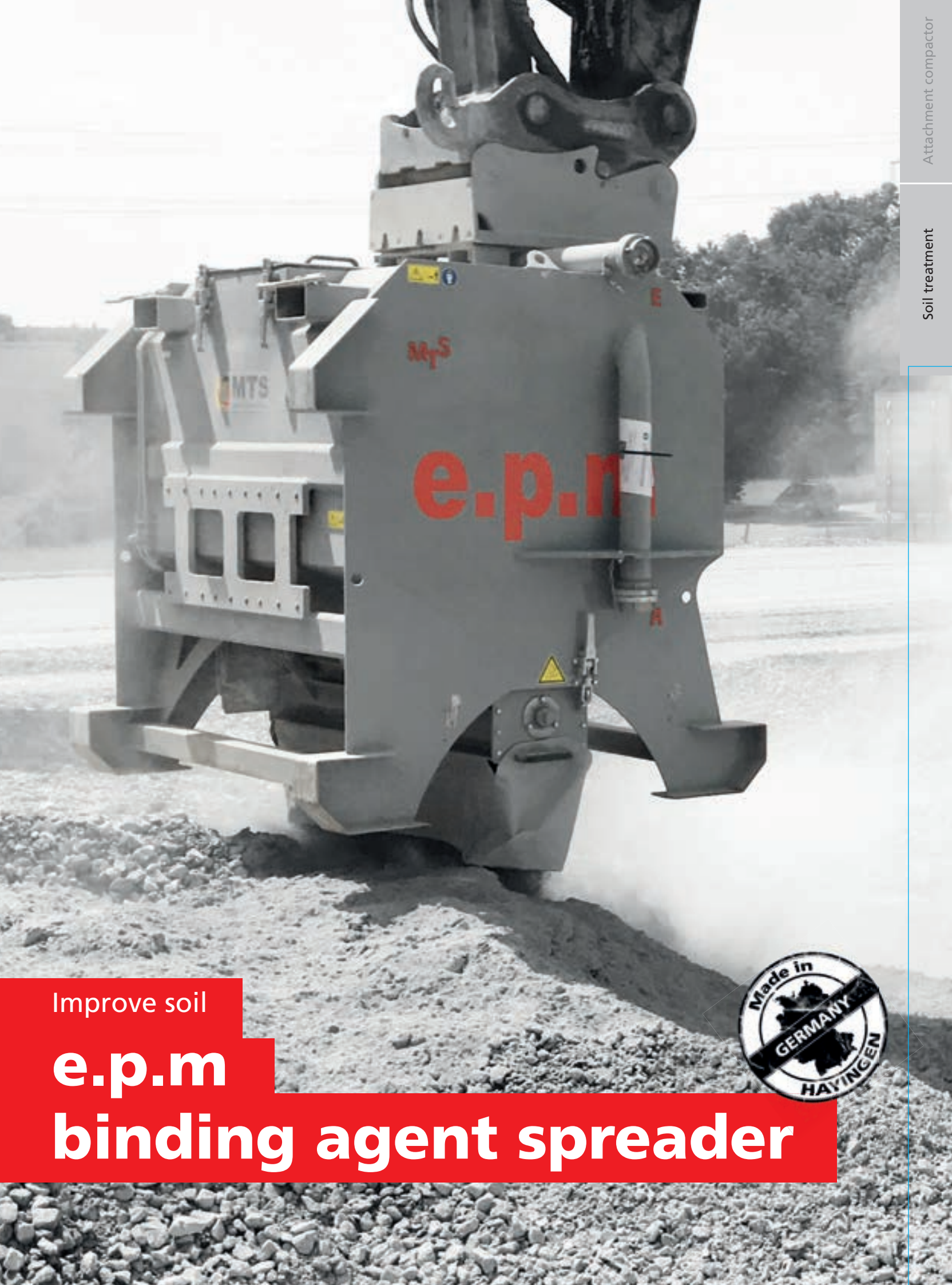
Disc type	Thickness of disc	Distance between discs
F30SC	16 mm	34 mm
F40SC	16 mm	44 mm



The perfect partner: e.p.m binding agent spreader

The MTS soil recycler, in combination with the binding agent spreader, is the perfect all-round solution for all soil conditioning requirements: you can apply a metered quantity of binding agent to the existing soil during backfilling, mix it in using the soil recycler and then re-fill it directly.





e.p.m.

MTS

MTS

Improve soil

e.p.m

binding agent spreader





e.p.m-SOIL IMPROVEMENT



Why soil improvement?

Soil is a useful construction material and induces high costs during conventional replacement procedures. Modern soil conditioning methods, which are consistent with the applicable guidelines for earthwork and road construction (ZTVE-StB 17), are cost-efficient – especially since the replacement of soils in any case contradicts the Recycling and Waste Management Act. Since the replacement of upcoming soils is usually insufficient, however, due to lack of compactibility, poor load capacity or large stone deposits, it is important to optimize these properties through soil conditioning measures. The focus here is on the reduction of the water content and the structural improvement of the soil. The process that has been developed by MTS for this purpose, which is both cost-efficient and resource-friendly, is called e.p.m.

How does e.p.m work?

Quite simple: The binding agent spreader is coupled to an excavator or loader and is filled with the corresponding binding agent. The first step is to distribute the binding agent dosed on the excavation material. Dosing takes place via a hydraulic drive, the binding agent level is visually displayed. The binding agent level can be correspondingly adjusted to the respective soil conditions here by means of the binding agent spreader. The binding agent-soil mixture is then mixed homogeneously with a soil recycler in a single step and fitted in the pit during the same process where possible. Thanks to the hydraulic quick-change device, the binding

agent spreader for the excavator is always at your fingertips, thus reducing the relevant downtimes to a minimum.

Which application areas are useful?

Whether "mixed in place" or "mixed in plant": Due to the easy handling, high performance and faultless results, the e.p.m procedure can be used in underground engineering within city limits as well as large development measures. Since grain fractions of 20 to 110 mm can be obtained by means of a specially designed soil recycler, the e.p.m procedure also facilitates use in the pipeline area according to DIN EN 1610.

Request our **e.p.m service package** free of charge: a detailed calculation and defined text templates for e.p.m alternative quotes. Simply send an e-mail to: info@bodenaufbereitung.de.



BINDING AGENT

Which binding agent?

Depending on the task and the soils in question, the most appropriate binding agent must be established to begin with. For clayey and strongly binding soils, we recommend binding agents with a high lime (CaO) content. For coarse and mixed-grained soils, we recommend binding agents with higher cement content. Since soil properties frequently change in their composition within a construction site, a mixed binding agent is often recommended.

How do binding agents work?

Caustic lime binding agents (chalk CaO DIN 1060), which primarily consist of calcium oxide and magnesium oxide and are produced through the burning of carbonate rocks, react with water in the soil by producing heat and then dry the soil.

Cement-containing binding agents increase the bearing capacity of the soil through cementation of the granular structure.

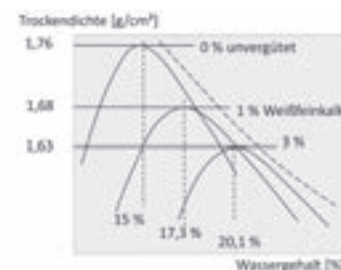
Mixed binding agents are factory-made mixtures consisting of building limes and cements (with the addition of fillers if necessary). They reduce the water content and increase the bearing capacity as a result.

Mixed binding agents containing CaO cause:

- => Crumb formation
- => Reduction of the water content
- => Reduction of plasticity
- => Improvement of compactability
- => Increasing of bearing capacity
- => Increasing of frost resistance (>3 Weight-% addition)
- => Shifting of the Proctor curve to the "wet side"

Which binding agent level?

The binding agent level depends on the respective soil properties and the weather conditions. If the soil is conditioned and embedded into place immediately after excavation within the e.p.m procedure, then rain or water content cannot have any negative influences. Experience has shown therefore that stiffer soils can be processed during soil conditioning at 1 % (weight %) on average.



Standards set out in percent by weight (weight -%)

	Fine lime	Mixing binding agent
Soil conditioning	0.50 to 2.00	0.50 to 2.00
Soil stabilisation	4.00 to 6.00	4.00 to 6.00



TECHNICAL DATA AND BENEFITS

Transport

Transport possibility with pallet fork

Large capacity

Easy BigBag insertion with 1.4 m³

Mounting fixture

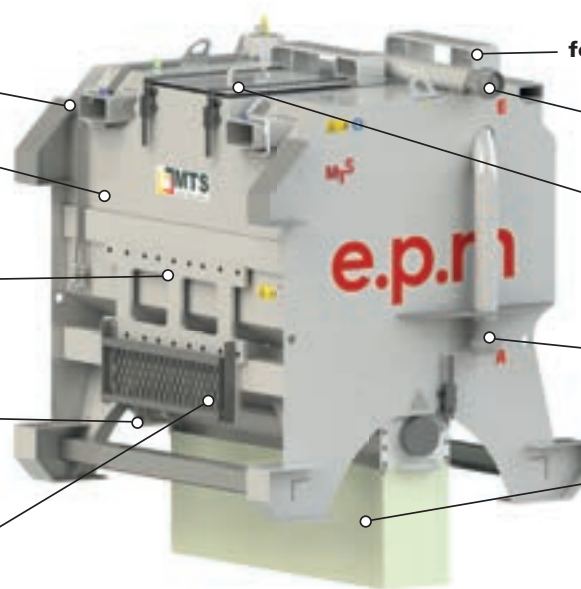
for quick-change adapter (excavator) Simple coupling

Hydraulic-driven spreading level regulation

Continuously variable dosing of the binder level

Folding step

Secure footing for maintenance and operation



Mounting fixture for quick-change adapter (excavator)
Simple coupling

Blowing device/filler
Simple filling using compressed air

Filler plug
Filling with stand silo or BigBag

Blow-through device
With dust bag

Dust protection
Dust-free dispensing of the binding agent

Dosing display
Precise monitoring

Model designation	Filling quantity [m ³]	Weight [kg] without plate	Hydr. [l/min] recommendation	Recommended Support device [to]	Minimum output (kg/min)
e.p.m 1002	1.40	840	25-40	Loader (5-12), excavator (10-30)	250
Binding agent silo	22 or 29	Loading capacity (incl. internal filling pipe and impact absorber)			
Pipe screw conveyor	Length: 3,700 mm				

Figures which speak for themselves

Up to 65 percent of the costs involved in soil management can be saved by simply rethinking, as the rough estimate of potential savings along a typical construction site sequence proves:

Conventional soil replacement

Item 1 Removal and refilling expenses	€12.00/m ³
Item 2 Gravel 0/56 or crushed-stone free construction site	€12.00/m ³
Total costs	€24.00/m³

Soil improvement in accordance with ZTVE-StB 17 using the e.p.m method

Item 1 Requirement of binding agent 20-30 kg/m ³	€3.75/m ³
Item 2 Equipment (e.p.m spreader and soil recycler), excavator approx. 20 to Performance 35 m ³ /hr.	€4.25/m ³
Total costs	€8.00/m³

Bottom line cost saving = approx. 65 percent*

* We would be happy to support you with any questions regarding soil improvement. We will also readily provide templates for alternative quotes and would be happy to support you by communicating with your contractor or engineering office in case of procurement issues!



Simply work in the binding agent

MTS limestone rake





WORK IN BINDING AGENT



Limestone rake

Recommended size of carrier [to]	Excavator	from 12 to
Weight [kg]		1,000
Dimensions LxHxW [mm]		2,300 x 775 x 1,175
Number of teeth		7

Soil preparation made easy

The MTS lime rake is a simple and economical product solution for all application contexts thanks to its stable and light construction. All common soil types can be easily

and quickly loosened and homogenised using the MTS lime rake. Even working binding agents into dense and cohesive soils is no longer a problem with this robust

add-on device. Regardless of whether it involves extensive soil improvement, soil preparation work or small-scale challenges:

✓ work in

✓ mix in

✓ loosen

Attachment compactor

Standard compactor (V series)
Interchangeable adapter compactor (WA series)
Universal compactor (US and UT series)

Attachment compactor

Soil treatment

Rotary mixer
MTS binding agent spreaders (e.p.m)
Limestone rake

Soil treatment

Digital construction site - BIM: MTS toolbox

3D machine control, construction work
Stake-out and survey work
Device management and requirements planning
Digital measurement and accounting
Planning and data processing

Digital construction site

Tiltrotator & quick-change unit

Tiltrotator
OilQuick quick-change unit
All major change systems on request

Rock cutter

MTS rock cutter

MTS special

Pipe shifting adapter
EGLI grabber
EGLI hydraulic magnet
Driller-core drilling unit

MTS rental park

Attachment compactor
Soil treatment
Milling unit
Demolition technology
Grabber
3D excavator control system

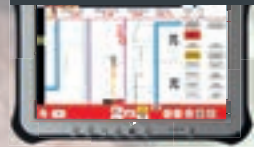
Attachment compactor

Soil treatment

Digital construction site



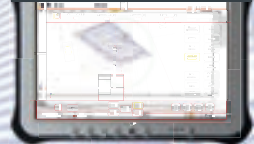
MTS-NAVI Excavator



MTS-NAVI Caterpillar



MTS-CAD



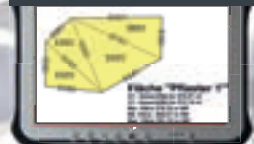
MTS-BASIS



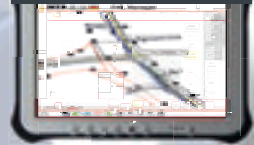
MTS-GEO



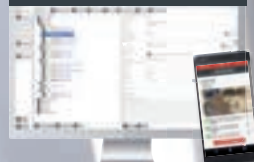
Measurement Assistant



PAL-Manager



MTS-SMART



Attachment compactor

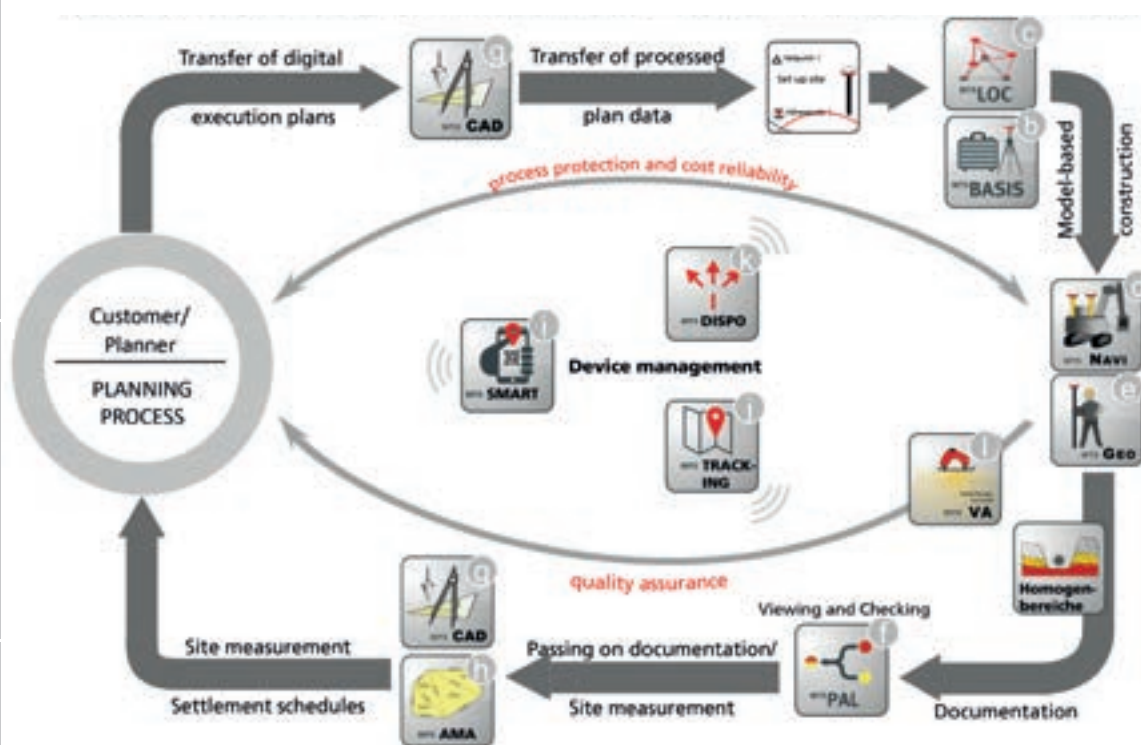
Soil treatment

Digital construction site

Planning - Execution - Documentation - Accounting

MTS-PILOT

Digital construction site



Civil engineering 3D+

Regulated digital construction process

- a Data preparation
- b Correction data
- c Localisation
- d Machine control system
- e Documentation/ stake-out
- f PointsAndLines-manager
- g Measurement
- h Measurement assistant
- i Device management
- j Device positioning
- k Requirements specification and accounting
- l Compaction assistant

MTS-PILOT - DIGITAL CONSTRUCTION SITE OVERVIEW OF THE MTS TOOLBOX

Product	Brief description	Assistants & tools	Page
FOR CONSTRUCTION WORK			
MTS-NAVI	3D machine control system for excavators & caterpillars	Excavation assistant Compaction assistant Filling layer assistant Volume assistant	37
FOR STAKE-OUT AND MEASUREMENT WORK			
MTS-GEO for the rover	Supports you in all measurement and monitoring work on the construction site	Excavation assistant Volume assistant	42
MTS-BASIS	Delivers correction data to your digital construction site	-	43
FOR PLANNING AND DATA PROCESSING			
MTS-CAD	This is essentially a data management and display tool for visualising measurement data.	Excavation assistant Volume assistant	44
FOR DIGITAL MEASUREMENT AND ACCOUNTING			
PAL-Manager	Sorts, filters or reduces the measurement data of a complete construction site		45
MTS Measurement Assistant	Generate finished accounting schedules at the push of a button and compile measurement data practically		45
FOR DEVICE MANAGEMENT AND REQUIREMENTS PLANNING			
MTS-SMART	Management and localisation of your complete equipment and machinery fleet		48
MTS-TRACKING	Automated tracking of devices, machines and accessories		50
MTS-DISPO	Extension module for device requirements planning		51



Your digital helper for excavators and caterpillars

MTS-NAVI for the 3D machine control system



The MTS-NAVI allows the operator to navigate their excavator bucket or blade along a digital terrain model via satellite and inclination sensors. The device produces precise guidance specifications when comparing the respective actual and target positions of the excavator bucket/blade, thereby saving time- and cost-intensive re-profiling as well as surveying work during construction.

The assistants & tools

Excavation assistant

Generate your own digital terrain models of excavation pits – including slopes and working areas and without special planning software.



Volume assistant

Calculate areas and volumes on site with just a tap of your finger and avoid, among other things, over- or under- excavations. The output of the results for accounting is REB-compliant.



Filling layer assistant

Determine, check and comply with the correct filling position. When the MTS attachment compactor is selected, the graphical depiction of the recommended filling position is displayed on the excavator computer.



Compaction assistant

The attachment compactor measures when the end of compaction is reached and transmits the data to the excavator computer. The load bearing capacity can be checked and logged by means of a measurement with the lightweight drop-weight device from HMP.



Functions of the 3D machine control system

- Create excavation pits directly on the excavator
- Direct access to a number of digital terrain models
- Excavate along lines and points
- Height distances and offsets can be selected by the excavator operator
- Installation and position control of surfaces
- Layer: can be switched on and off for better over-view
- Calibration of any number of buckets
- Trade: individual compilation of plans and 3D guidance data
- Quickly and easily record points and lines
- Direct selection of character symbols
- Direct output as DXF file for further processing in CAD systems

MTS-NAVI: for excavators and caterpillars

Your benefits

- ✓ Increase in performance by up to 50%.
- ✓ Amortisation after one year
- ✓ Optimisation of construction site processes
- ✓ Simple calculation and accounting
- ✓ High attractiveness for skilled workers
- ✓ Maximum planning reliability

1 receiver box with 3 application possibilities...

...on the excavator



...on the caterpillar



...in the backpack rover



1 computer with 3 application possibilities...

...as excavator computer

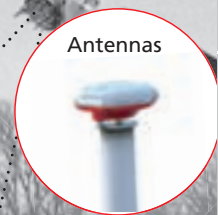


...as rover computer

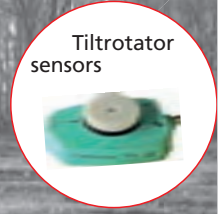


...as office computer





Antennas



Tiltrotator sensors



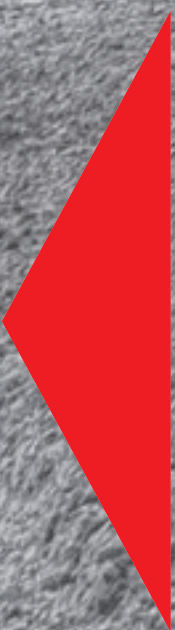
Inclination sensors



Receiver box



Base radio



Attachment compactor
Soil treatment
Digital construction site



SPECIAL SOLUTIONS



Special excavators with additional boom or attachment devices can be operated with the MTS-NAVI.

3D mini excavator with swivel arm sensor

Small-scale complex construction sites with a lot of inventory in particular require a great deal of staking out and the metre rule is a constant companion – there is great potential for savings here! Check it out.



Tiltrotator

MTS tiltrotator and MTS-NAVI are the perfect match for full flexibility. Transferring the rotational angle and swivel angle values guarantees maximum accuracy and precise work.

Excavators with mulchers, mowers and other attachment devices

You can see where you have already been here, because the transit is logged. For ideal route planning taking into account ingrown obstacles such as manhole covers, posts and stone blocks. Ask us for an individual solution.



Attachment compactor

Our compaction assistant records the end of compaction directly in the site plan. The prerequisite is an MTS attachment compactor with "VA", electric feed-through and load assistant as well as an MTS-NAVI with MTS compaction assistant. Our filling layer assistant and the documentation of the control tests with the lightweight drop-weight device from HMP are already available.

3D push caterpillar & 3D load caterpillar

The MTS-NAVI with caterpillar display system is the perfect match for the excavator NAVI. Shoving off the topsoil becomes the most cost-effective solution without any staking out. The MTS-NAVI is then simply relocated to the excavator for trench excavation. You can of course also plane and profile with the MTS-NAVI caterpillar.

Our development department looks at each load caterpillar on an individual basis. Simply get in touch with us.



Caterpillar automation

Inquire as to whether your caterpillar can be retrofitted. Just think about us when making your purchase and order a new caterpillar with NAVI pre-fitting now.

Excavator automation

We work together with our partner Vemcon here. Do not hesitate to ask us if your excavator can be automated or not.



APPLICATION EXAMPLES

Sewer and pipeline construction

The MTS-NAVI ensures efficient and safe work in sewer and underground pipeline construction. Crossing pipelines are indicated during excavation. The bottom of the pit can be made to fit the profile in the first working step, guaranteeing uniform pipe bedding.

The filling layer assistant then supports the dispensing of the exact filling heights and the control of the exact placing thicknesses. Pipe damage during compaction is a thing of the past.

Civil engineering and road construction

The 3D control system works particularly efficiently on construction sites with complex requirements, such as piping, canal and road work in urban areas:

This eliminates the need for stake-out work during excavation and the associated waiting and standing times, since obstacles in the pit are indicated directly on the display. The operator can check the position and height at the same time. This means that the plane can also be applied in the correct profile during backfilling.

Precise work

Construction site work that requires accuracy to the centimetre is solved precisely, quickly and without disruptive stake-outs thanks to a 3D control system.

The time savings are particularly significant in the case of small-scale and complex construction projects - such as the excavation of foundations.

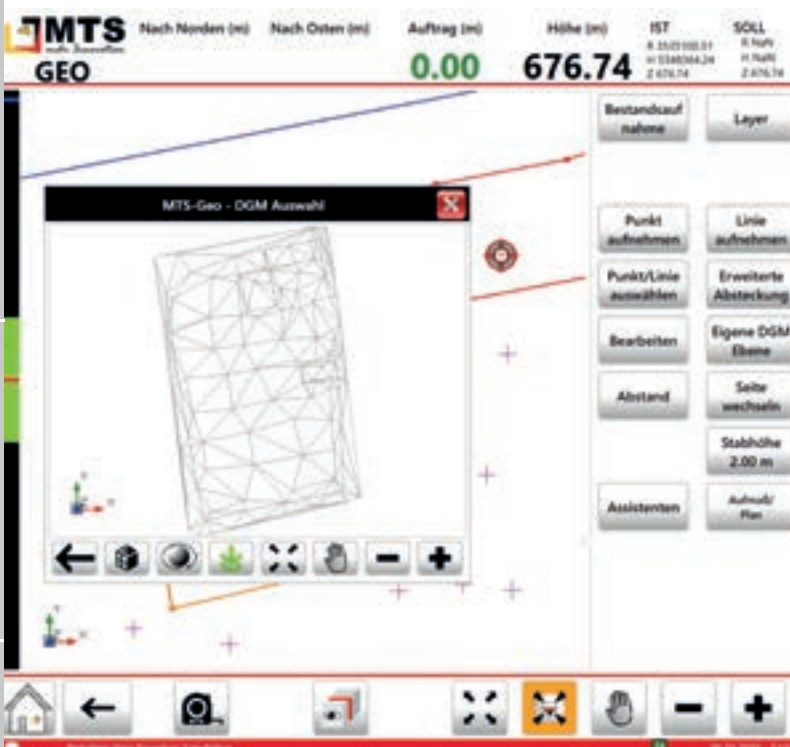
Hydraulic engineering

A 3D control system is still able to safely navigate the excavator bucket where visibility is lacking. This is because its position and orientation under water are also indicated on the display. The excavation depth reached is recorded.

Slopes, dykes, recesses

3D control achieves an enormous increase in daily output and maximum machine utilisation wherever earthworks projects require extensive earth movements and accurate profiling: The digital terrain model (DTM) stored in the computer makes staking out and levelling work no longer necessary and allows work to be carried out with precise profiles.





The surveying software



**MTS-GEO
FOR ROVER**

MTS-GEO saves the preliminary staking by the surveyor: Site managers and foremen can now stake out the site themselves during the construction phase. MTS-GEO is also your assistant for inventories and measurements. It guarantees maximum efficiency, because you can start with the digital measurements early in the construction phase. The precise surveying of the terrain before and after a work process facilitates, for example, the exact determination and allocation of the moving masses on site. This means that each individual work step can be documented immediately after completion.

The assistants & tools

MTS-LOC with Trans+

- ✓ Trans+ function: Localisation without fixed points via map with the touch of a fingertip
- ✓ Local coordinate systems - orientation is irrelevant here.
- ✓ Worldwide use
- ✓ Determination of the transformation parameters for the construction site

Corrective data service

- ✓ Working without a basis
- ✓ Direct working in UTM possible - without localisation
- ✓ Low investment costs

New: TransService*

- ✓ Direct working in Gauss-Krüger coordinates

* chargeable activation

The benefits

- Saves the need for preliminary staking by a surveyor
- The foreman can personally perform stake-outs during construction - at the appropriate time
- Advanced functions for inventories and measurements
- Advanced stake-out functions such as indirect measurement and other additional functions relevant to construction practice
- Precise surveying of the terrain facilitates the exact determination and allocation of the moving masses
- Each work step is documented - complete accounting documentation

The surveying hardware

MTS-Rover - MiraQLX



PREMIUM ROVER

The professional solution that also guarantees coverage on house walls and under bad weather conditions:

Contains:

- ✓ MiraQLX - high performance rover receiver
- ✓ Tablet PC
- ✓ Rover rod with very light tablet PC holder
- ✓ MTS-GEO software
- ✓ Corrective data via mobile and base radio possible
- ✓ GALILEO-ready*
- ✓ Innovative interference filter for best coverage
- ✓ optional: height adjustable rover rod

* chargeable activation



BACKPACK ROVER

For all those who already have a 3D excavator control system: Use the receiver box and an antenna of the excavator as a backpack rover for the first terrain survey or for measurements! You do not have to invest in an extra surveying rover and yet remain flexible.

Complete 3D plans entirely without planners!

Features to complement your 3D excavator control:

- ✓ Rover rod
- ✓ Backpack
- ✓ Rechargeable battery

Delivers your own correction data

MTS BASIS



MTS BASIS

Components:

- ✓ **Continuous operation with closed, waterproof cases**
- ✓ GPS/GLONASS/GALILEO – antenna and receiver
- ✓ Radio modem (403...473 MHz)
- ✓ Compatible with most excavators and rovers from other manufacturers
- ✓ Can be used for several excavators and rovers on one construction site



*The software for
data preparation &
quantity determination*



MTS-CAD

CAD plans, which are usually available in DXF format, form the basis of data preparation. The MTS-CAD concentrates on the necessary degree of functions required in data preparation for civil engineering. This is essentially a data management and display tool for visualising measurement data.

The features

- ✓ 3D CAD program
- ✓ Cutting
- ✓ Manage layers
- ✓ Tools
- ✓ Create and edit DTM
- ✓ Read in and output points
- ✓ Create and edit measuring points
- ✓ Simple meshing of digital terrain models
- ✓ Volume calculation
- ✓ 100% compatible with the MTS-PILOT programs

The benefits

- Quick and easy to use - requires little familiarisation
- Map material can be created for construction projects
- Display of sewers and pipelines as 3D lines
- Check and supplement existing planning documents
- Planning errors are detected before the construction site comes to a standstill
- Determined lengths, areas and volumes help with the requirements specification during construction
- Lengths, areas and volumes yield traceable and verifiable accounting documentation
- No CAD knowledge required

SOFTWARE MAINTENANCE AGREEMENT

All-round carefree package

You will receive an all-round carefree package with the new software maintenance agreement with additional benefits for your MTS-PILOT software.

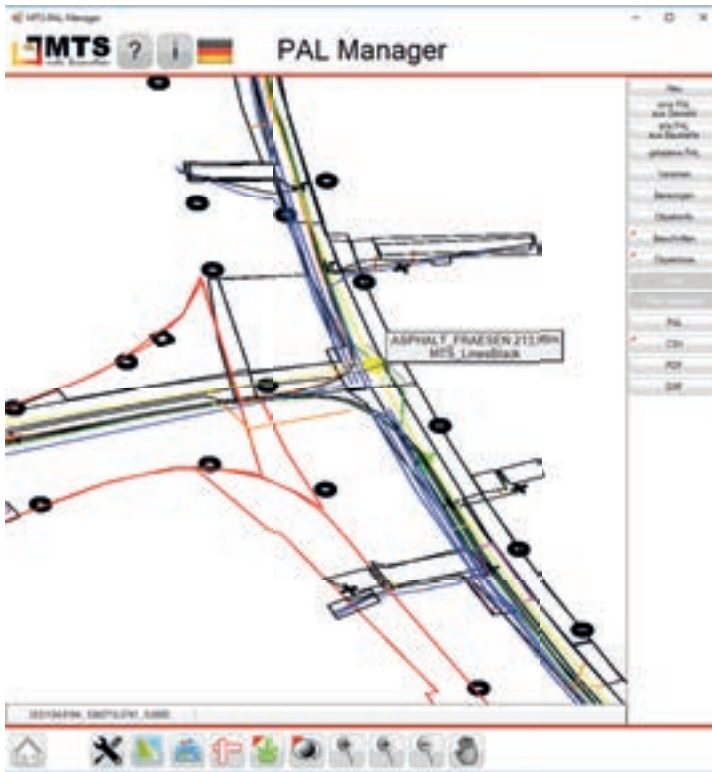


Curious? We would be happy to advise you!
All information is available at www.MTS-PILOT.de

- ▶ Upgrades
- ▶ Updates
- ▶ Support
- ▶ Training



PAL Manager (PointsAndLines)

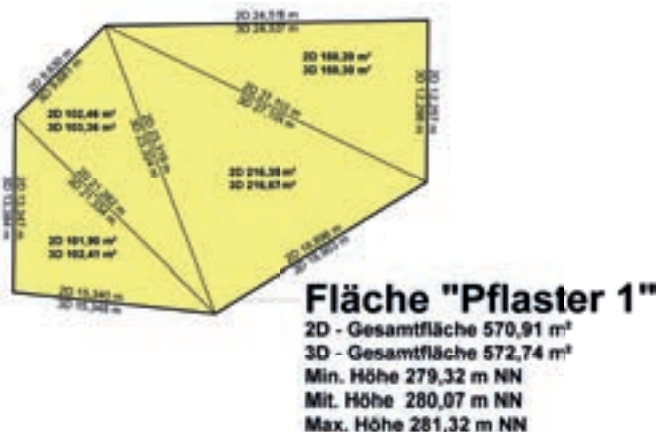


- ✓ Sorts, filters or reduces the measurement data of a complete construction site
- ✓ Further processes the measurement protocol
- ✓ Graphical or tabular display and output of the recorded data
- ✓ Facilitates the clarification and consolidation of the measurement data for MTS-PILOT applications
- ✓ Preparation for further processing with the MTS-CAD or other CAD programs
- ✓ Saves new data records in various formats
- ✓ Viewing and forwarding of selected points or lines from an existing trade
- ✓ Identifies and clarifies duplicate data

free of charge - but not without purpose!

You can download the set-up free of charge doku.mts-online.de.

MTS Measurement Assistant



- ✓ Output as PDF with dimensioning
- ✓ Finished accounting schedules at the touch of a button
- ✓ Splitting of the measurements according to your own specifications, e.g. cost bearer or location
- ✓ Compiles measurement data logically, e.g. by location, "HA No.4" or the content "kerbstones"
- ✓ Verifiable and traceable measurement documentation
- ✓ The customer does not need any special software for testing and adoption.
- ✓ Connection to the ISL Construction Site Manager



Interface expertise from professionals

3D data preparation

The benefits of digital construction site planning are quite obvious: Stake-out work is "prefabricated" and moved from the construction site to the office. This saves manpower and guarantees a fast and smooth construction process. However, this calculation only applies if the quality of the planning data is flawless, since it is the only way to guarantee cost-efficient management of construction sites.

How we can support you:

- ✓ Support**
- ✓ Content check**
- ✓ Training**
- ✓ Data conversion**

Small and medium-sized construction companies are often lacking the necessary mix of manpower, expertise and software equipment for data creation.

MTS therefore offers support, independent of the manufacturer, for the implementation of your planning documentation for excavator control. This includes all services from pure support, the complete realisation of the data to the training of your employees.

The investment pays off because every hour that is invested wisely in data preparation reduces the surveying workload and significantly accelerates the construction process.

From planning to the construction project



Paper plan



Digital terrain model



3D data on excavator computer



The "real" construction site

Do you want a quick and practical introduction to data preparation? Then take a look at our MTS training.

**All information is available at
www.MTS-Akademie.de**



MTS ... denn Wissen ist Zukunft
Akademie

SERVICE PACKAGES FOR 3D DATA PREPARATION

You deliver:

Your documents/plans as *.dwg or *.dxf

You receive:

Ready-prepared data via email or remote maintenance directly to your tablet PC.
Terrain models as MTS-DGM *.dg1. | Adjusted plans as *.dxf.
corrected fixed points for localisation if necessary | possible stake-out points.

Note: The categorisation according to data source [3D] or [2D] or project size can only be carried out after the data has been viewed by MTS.

Data preparation from [3D] data

Small project*

e.g. excavation pits, small developments

400, Euro

Medium project*

e.g. construction area, channel construction, road construction

750, Euro

* Terrain models are provided as *.xml or *.reb.
The roadside must be present as a 3D line.

Data preparation from [2D] data

Small project*

e.g. excavation pits, small developments

800, Euro

Medium project*

e.g. construction area, channel construction, road construction

1,400, Euro

* If no 3D models are available, we can create them for you from your design specification points or route data.

Data preparation for special projects

Viewing

View data
Checking for missing documents
Contact planner if necessary

150, Euro

The subsequent data preparation is billed according to expenditure.

+ Office expenses

Procurement of plans, data etc., processing of existing plans, (paper, digital) as 3D model for your machine control system

+ On-site expenses

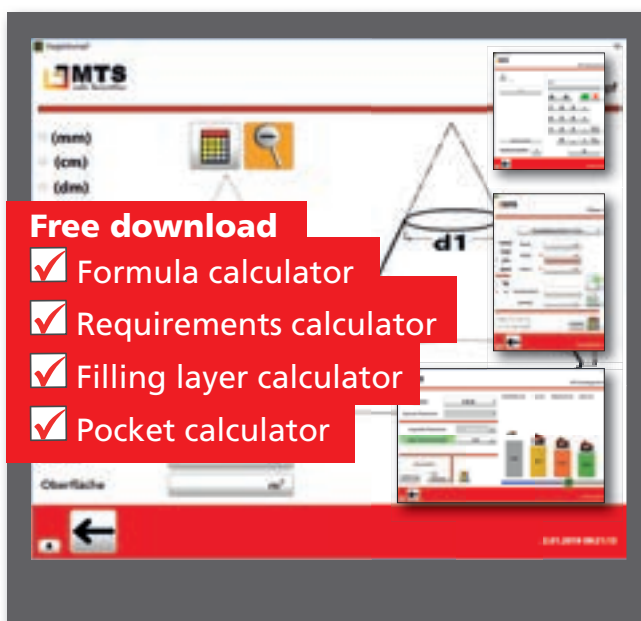
Surveying work, on-site appointments and support plus travel expenses

Express surcharge for delivery within a maximum of 5 days: 300, Euro

*Realisability assumed (regular delivery time: 1-2 weeks)

The smart one for your virtual pocket

MTS Construction Helper - CleverX



Free download at:

www.MTS-Bauhelfer.de

Pocket calculator

- Calculations can be used anywhere in the construction helper
- Correction of the calculation steps at any time

Formula collection

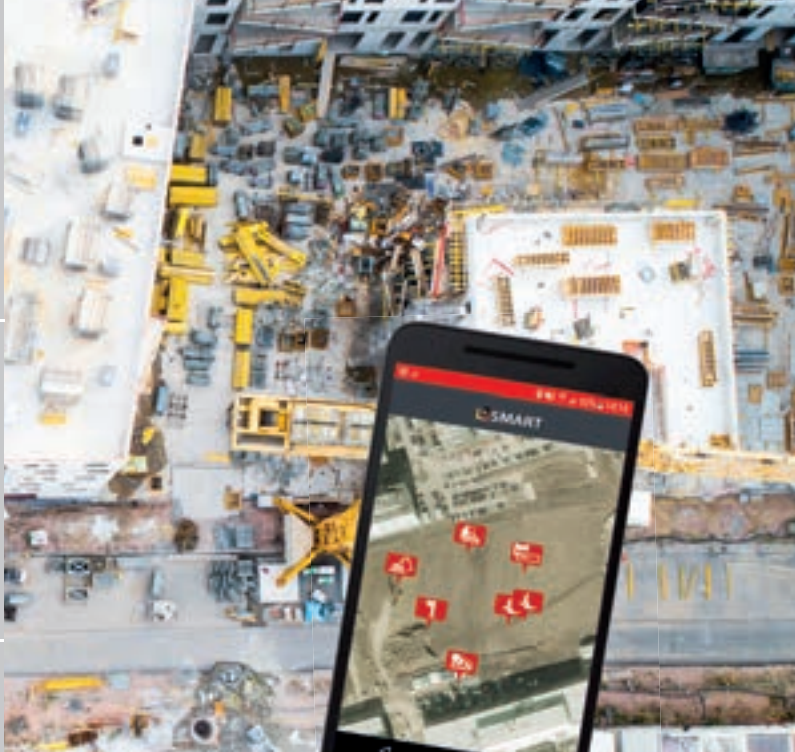
- Gradient calculation
- Simple calculation of areas and volumes with the most important building geometries

Requirements calculator

- Quick, simple determination of backfill material/pavings/asphalt
- Self-adaptation of the building material
- Determination of quantity and weight

Filling layer info

- Safety with filling layers
- Compact information about compaction and the MTS attachment compactors



*Device management
with smartphones and QR codes*



MTS-SMART

MTS-SMART organises your equipment and machinery fleet. You and your employees always have an overview of where which work equipment is currently located thanks to the localisation of all devices and machines. Many unnecessary questions and approaches are thereby avoided. This not only saves a lot of time, but also has other practical effects: The exchange between employees on the construction site and construction managers/planners in the office is quick and focused – capacity utilisation is significantly improved. Damage reports are recorded on site and sent directly to the service department. And: you can bill the operating times of your machines correctly at the touch of a button.

All devices at a glance



Localisation & tracking

You always have an overview of the locations and the current workload by managing all machines and devices.

Reduce downtimes



Rapid detection and action

Damage reports with photos are sent directly to the responsible service department, reducing downtime to a minimum.

Saves time and money



Accounting of your construction sites

You can bill the operating hours of your machinery and equipment conveniently and accurately.

Order on the construction site!

MTS-SMART is the manufacturer-independent solution for the management of all your equipment and machinery fleet. The intelligent device management exploits the advantages of modern smartphone and storage technology for fast data transmission and updating of all relevant systems. It is easy to use and intuitive, bringing an end to tiresome searching on the construction site.

MTS-SMART can be expanded with modules for automated tracking and scheduling:

- MTS-TRACKING -> Page 50
- MTS-DISPO -> Page 51

SMART-App

You can use the SMART app for smartphones/tablets to inventurise and localise your devices and machines. The SMART app scans devices using QR codes/NFC chips or similar acquisition systems. The current location of the device is stored via the smartphone GPS receiver. The map view shows an overview of how your equipment is distributed. Individual devices can be navigated via the direction finding function. This means that you can find each of your devices quickly and efficiently. Further information on devices can be obtained: documents, test reports, photos, operating hours and mileage.



for iPhone and Android

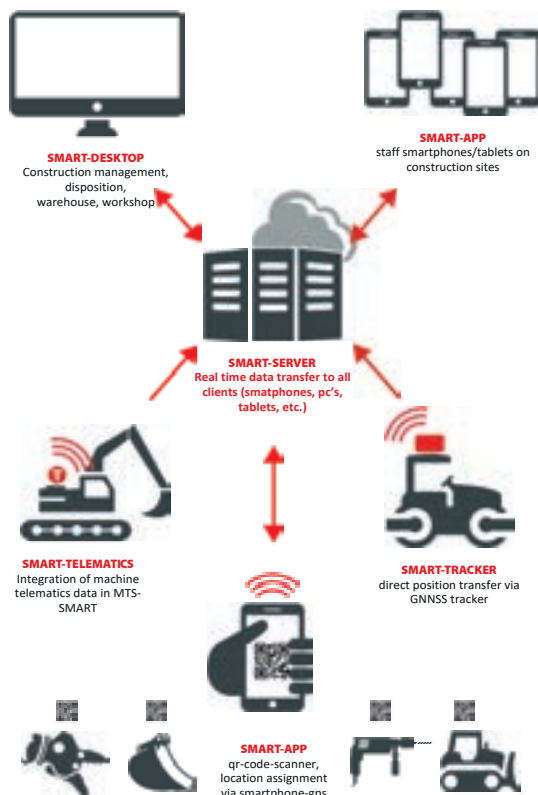
SMART-Desktop

The switch point on the computer allows you to manage all devices, machines, construction sites and users simply and clearly. The master data is imported as CSV or via your goods management system (e.g. BRZ). Site managers and schedulers are directly connected to the construction sites and can easily exchange documents.



SMART-Cloud

All data is stored and managed via the cloud, updated in real time and entered directly into the system. You can also set up and store the data on your own customer server if you wish.



MTS-SMART - functions

SMART-App

- ✓ Recording of devices directly at the construction site (inventory)
- ✓ Map view of all devices on the respective construction sites
- ✓ Find devices via the direction finding function
- ✓ Up-to-date information available for all employees
- ✓ Damage reports directly to the service department

SMART-Desktop

- ✓ Direct recording of master data or import from XLS/CSV
- ✓ Map view of all devices on the respective construction sites
- ✓ Management of device lists, construction sites and employees
- ✓ Interface to ERP and telematics solutions

SMART-Server/Cloud

- ✓ Server/cloud-based storage, optionally on your own servers or in the MTS cloud
- ✓ Real-time storage and management of your data



Test out the MTS SMART app demo version!

► To the Google Play Store



Tough but smart



MTS-TRACKING

You can optionally equip valuable machines and attachment devices without their own power supply with active GNSS trackers. These have their own long-life batteries and send their location data to the server at specified intervals. The trackers are specially designed for use in demanding environments and can withstand rain, moisture, cold and vibrations. You can record operating hours by integrating machine data. You can account for your construction sites on time through further evaluations and analyses.

The integration of trackers from other manufacturers or of built-in telematics systems in large machines is also possible. This allows you to map your entire machinery and equipment fleet and manage it in one place, regardless of manufacturer.



Tough performer:

The trackers have an impact-resistant and waterproof housing with integrated antennas, which is attached to your devices by means of a robust bracket.



Everything at a glance

The tracking module gives you access to the data of all devices and provides comprehensive analyses, e.g. operating hours and load.



Smart and enduring

The tracker achieves a battery life of up to 5 years. Sensors detect the position and movement of the device and calculate its operating status.



Quick and reliable

The data is transmitted securely using the respective optimum mobile network.

Overview of all functions

- ✓ Localisation and tracking of devices, machinery and accessories without separate power source
- ✓ Use in hostile working environments (strong vibrations, moisture, cold)
- ✓ Theft protection (geofencing, motion alarm) and damage prevention
- ✓ Data transmission and logging intervals can be individually configured
- ✓ Integration of other systems (e.g. Bosch Traci, Trackunit, etc.)
- ✓ Integration of machine telematics data in accordance with ISO/AEMP standards (e.g. Lidat, Komtrax)



*Planning - Distributing
- Accounting*



MTS-DISPO

The MTS-DISPO module enhances the functionality of MTS-SMART with scheduling functions. Devices can be requested by employees directly at the construction site and the orders can be further processed by the scheduler. This makes the procurement of working materials, the ordering of machinery and devices and the organisation of logistics considerably faster and more efficient.

The scheduler has an overview of which devices have to be procured from rental parks, which devices and machinery are free or in use and can be transferred from one construction site to the next. Unnecessary telephone calls and queries between the construction site and the scheduling department are avoided, since all employees always have up-to-date information on the availability and delivery dates of devices. The app is easy to use and can be run without any training.

ERP interfaces enable direct access to the goods management system and ensure lean and efficient processing.



Mobile needs assessment

All requests are recorded on-site directly via smartphones/tablets and forwarded online.



Connects construction site and office

Direct access to all information, straightforward exchange of photos and documents, both from the construction site as well as from the office.



Efficient requirements planning

Optimised processes in your company mean that SMART-Dispo pays for itself in no time.



Quick and reliable

All data is processed, stored and archived for the long term through high-performance cloud systems.

Overview of all functions

- ✓ Direct request of devices/machinery on the construction site via the app (simple like webshop)
- ✓ Requirements planning on scheduling board for all devices with coloured bar chart (occupied, free, etc.)
- ✓ Creation of orders, generation of delivery notes (ERP interface)
- ✓ Colleague has direct overview of the processing status of an order via the app
- ✓ Monitoring of budgets and accounting of cost centres

MTS-PILOT-Items	System components	Purchase	Rental	Leasing
Preliminary set-up MTS-NAVI	Excavator preliminary set-up for MTS-NAVI	✓	-	-
	Preliminary set-up for swivel boom with rotational angle sensor & MTS Gateway	✓	-	-
	Preliminary set-up of push caterpillar for MTS-NAVI	✓	-	-
	Swivel bucket kit	✓	-	-
	Inclination sensors for excavator, caterpillar and swivel bucket	✓	-	-
	Electric coupling for swivel bucket kit / iCANnect, OilQuick, Likufix	✓	-	-
	MTS-Gateway for external excavator controls	✓	-	-
	Spare parts box	✓	-	-
MTS-NAVI	Receiver box for base and mobile communications	✓	✓	✓
	Satellite antennas	✓	✓	✓
	Tablet PC Pilot with software MTS-NAVI	✓	✓	✓
	Excavator tablet docking with DC power adapter	✓	✓	✓
	Service transport box with foam insert for MTS-PILOT components	✓	✓	✓
	Special accessories: Harting combi-plug for receiver box	✓	-	✓
	MTS excavator control as backpack rover	✓	-	✓
MTS-Rover	Rover receiver MiraQLX-3G	✓	✓	✓
	Tablet PC Pilot with software MTS-GEO	✓	✓	✓
	Rover rod for MiraQLX 2-part 2m Carbon (altern. extractable)	✓	✓	✓
	Rover tablet holder	✓	✓	✓
	Rover case for MiraQLX	✓	✓	✓
	Replacement tip for rover rod MiraQLX	✓	-	-
	Sand plate for rover rod MiraQLX	✓	-	-
	Ranging rod tripod stand	✓	-	-
Software module MTS-Transervice	✓	-	-	
MTS BASIS	MTS basis reference station	✓	✓	✓
	Replacement battery incl. desktop charger	✓	✓	-
	Radio frequency repeater for base station radio	✓	✓	-
	Container holder for base antenna	✓	-	-
MTS software	MTS-NAVI (3D excavator control)	✓	✓	✓*
	MTS-GEO (rover software)	✓	✓	✓*
	MTS-CAD	✓	✓	✓*
	MTS excavation assistant	✓	✓	✓*
	MTS filling layer assistant	✓	✓	✓*
	MTS volume assistant	✓	✓	✓*
	MTS-VA			
	MTS-PAL-Manager		free of charge	
MTS measurement assistant	✓	✓	✓*	
MTS software maintenance agreement	MTS-NAVI (3D excavator control)	-	✓	-
	MTS-GEO (rover software)	-	✓	-
	MTS-CAD	-	✓	-
	MTS excavation assistant	-	✓	-
	MTS filling layer assistant	-	✓	-
	MTS volume assistant	-	✓	-
MTS-SMART	MTS-VA	-	✓	-
	MTS-SMART software license	-	✓	-
	MTS-SMART set-up on customer server	✓	-	-
	MTS-SMART software development/adaptation according to customer requirements	✓	-	-
	MTS-SMART QR-code aluminium tags	✓	-	-
MTS-TRACKING	MTS-SMART QR-code adhesive labels	✓	-	-
	MTS-Tracker T3000	✓	-	-
	MTS-Tracker mounting set magnet	✓	-	-
	MTS-Tracker data transmission	-	✓	-
MTS-DISPO	MTS-Tracking machine telematics data	-	✓	-
	MTS-DISPO device scheduling	-	✓	-
Data preparation (service)	from 2D/3D data *.dwg or *.dxf	✓	-	-
	Express delivery within 5 days	✓	-	-
MTS-Next-Cloud	Advice for your cloud solution		free of charge	

* Leasing in connection with hardware possible

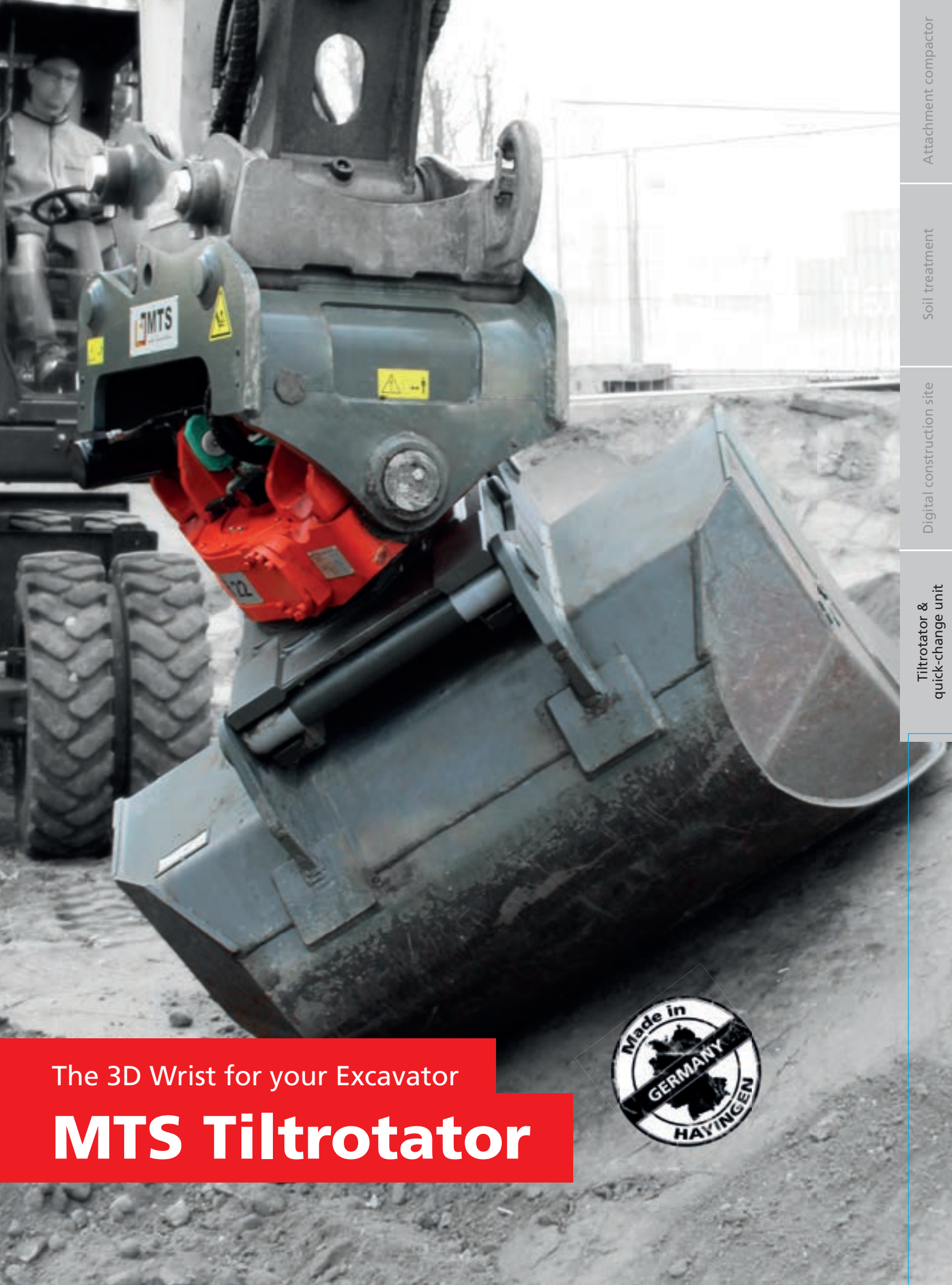
Attachment compactor

Soil treatment

Digital construction site

Tiltrotator &
quick-change unit





Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

The 3D Wrist for your Excavator

MTS Tiltrotator





Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

The flexible wrist for your excavator

The tiltrotator serves as a "wrist" for the excavator arm where construction sites leave little room for the excavator to manoeuvre. Being able to swivel and tilt at the same time, it provides maximum freedom of movement when using your attachment devices.

Moreover, the economic efficiency of the construction site is increased through the elimination of travel paths and manual work, while fuel consumption is reduced at the same time.

Tiltrotator sandwich: More flexibility

Thanks to the new sandwich solution, you can switch your tiltrotator between excavators and attachment devices within seconds, thereby additionally increasing your flexibility.

The tiltrotator can be removed during heavy use to keep your excavator efficient and free from unnecessary weight and loss of kinematics. The depositing of the equipment during heavy work also minimize wear and tear and guarantees maximum protection of the equipment.

MTS Tiltrotator: For more safety and efficiency

▶ **Sandwich construction**
No load restrictions during extreme use thanks to the possibility of removing the tiltrotator

▶ **Maximum freedom from damage**
Doing away with protruding hydraulic hoses eliminates typical sources of damage

▶ **Minimal fuel consumption**
The low overall weight and sandwich structure save unnecessary consumption

▶ **Fully hydraulic tool change**
The optional electric rotary joint facilitates a fully hydraulic change of the attachment tools without having to leave the driver's cab

▶ **Precise positioning**
The low structural height allows maximum manoeuvrability in use

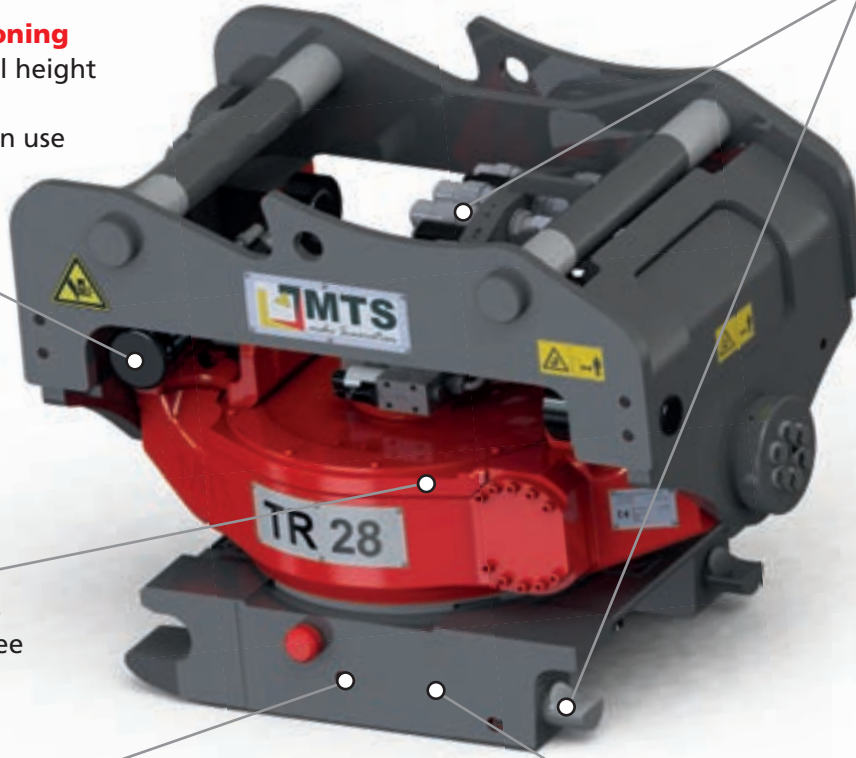
▶ **High power in all positions**
The swivel cylinders provide an enormous swivel moment and fast tilting.

▶ **Extreme torque**
The sturdy gear unit guarantees maximum torque with a high degree of efficiency.

▶ **Maximum safety**
The locking assistant prevents errors when changing tools.

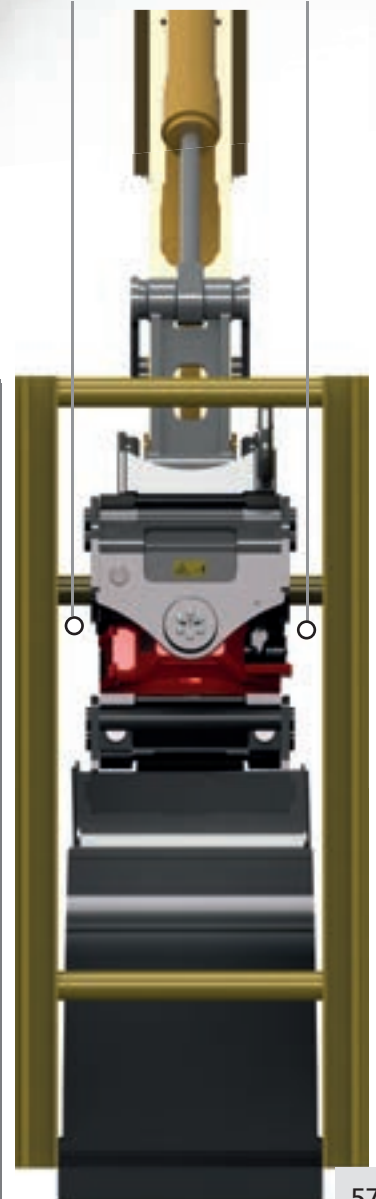
▶ **Long service life**
Less wear, since tools are only coupled when needed

▶ **Optional:**
also available with mechanical quick-change unit

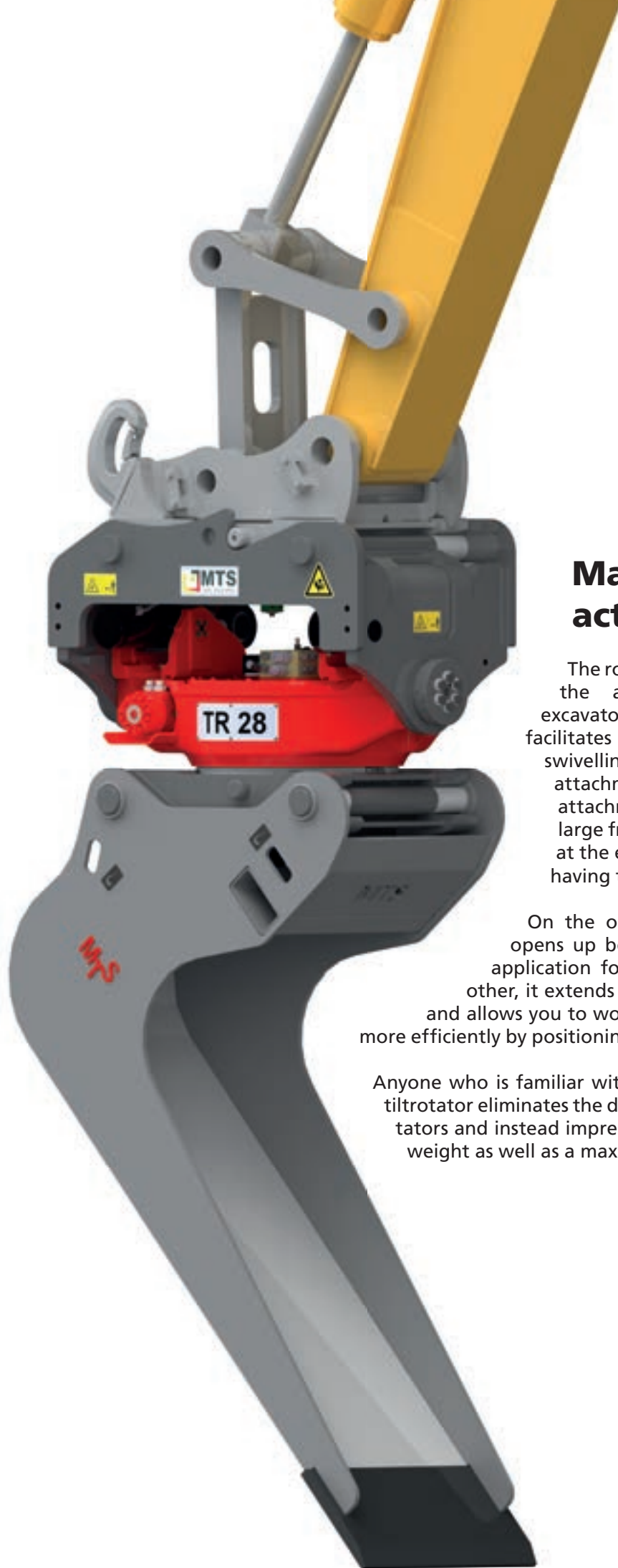


▶ **Easy maintenance**
Low level of maintenance due to good accessibility

▶ **Maximum side clearance**
There are no hydraulic cylinders susceptible to malfunction or damage thanks to the internal swivel cylinder



Complete connection to the 3D excavator control system
Sensor technology on the tiltrotator detects the exact tool position



Maximum action radius

The robust multifunctional unit optimises the application possibilities of the excavator with two additional functions: It facilitates alternating, but also simultaneous swivelling and endless rotation of your attachments. You are able to position your attachment devices precisely thanks to the large freedom of movement in the "wrist" at the end of your excavator arm, without having to manoeuvre the excavator.

On the one hand, the increased flexibility opens up better utilisation and new areas of application for your carrier equipment. On the other, it extends the radius of action to a maximum and allows you to work much faster, more precisely and more efficiently by positioning your attachments more precisely.

Anyone who is familiar with the subject knows that the MTS tiltrotator eliminates the disadvantages of conventional tiltrotators and instead impresses with its low overall height and weight as well as a maximum degree of lateral freedom.

More flexible application possibilities

► Civil engineering and canal construction

Sloping of trench walls
Uncovering of crossing lines
Pipe laying
Backfilling



Attachment compactor

Soil treatment

Digital construction site

► Landscaping

Constructing ponds
Setting up pillars
Construction of embankments and plains
Clearance of vegetation



Tiltrotator & quick-change unit

► Urban road construction

Material installation and modelling of plains and embankments
Material transport
Takeover of manual work



MTS CONTROL

The standard configuration with the new MTS-CONTROL panel now provides even more safety than ever before. The small and easy-to-handle touch screen with integrated device recognition is extremely user-friendly and a valuable co-pilot for every application of our tiltrotator. The most important functions that are displayed via the MTS-CONTROL panel can be seen to the side.



Manufacturer-independent control

The MTS tiltrotator can also be operated using the control system already installed in the excavator (e.g. Liebherr).

High-tech assistant for more safety and efficiency

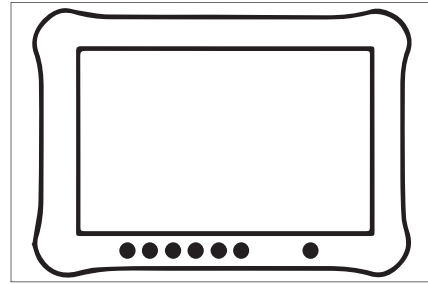
Our assistants take over all the routine tasks where people could make mistakes so that you can concentrate on your actual work.

This is based on state-of-the-art sensor technology in the background: It identifies hydraulic tools, warns of locking errors, detects the current rotational and swivel angles and corrects the alignment of the tiltrotator if incorrect loads could cause damage.

This allows you to conveniently control and change hydraulic tools from the driver's cab, rule out locking errors and overload damages, and select exact rotational and swivel angles.

Furthermore, you always have an overview of current operating hours, loads and maintenance intervals.

3D assistant



3D excavator control system

All tiltrotators are equipped with rotational angle sensors, making them suitable for use in a 3D excavator control system.

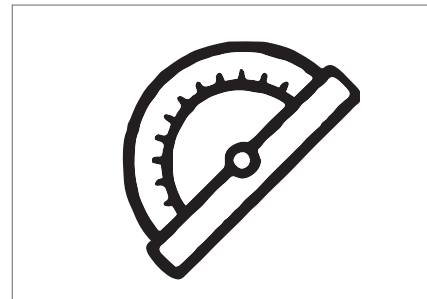
LOCKING assistant



Secure coupling

The LOCKING assistant uses several sensors to check that the coupled attachment devices are properly locked in place. A loud advisory tone and a corresponding error message on the display warn of errors.

POSITION assistant



Display settings

The POSITION assistant uses two sensors to check the rotational and swivel angle and displays this on the CONTROL display or the MTS-NAVI-Tablet-PC. Ideal for tasks such as modelling terrain surfaces.

OVERLOAD assistant



Avoid damages

The OVERLOAD assistant prevents damage at maximum load. Hydraulic valves detect when the excavator rests on one side of the bucket, for example, and automatically align the tiltrotator free of load.

SERVICE settings



Maintain an overview

The SERVICE assistant gives details of current operating hours, loads and maintenance work. This means that the operator always has an overview of when the next lubrication date is due, for example, or when service is required.



TECHNICAL SPECIFICATIONS

TR10



TR18






TR22



TR28



Rec. Excavator size [to]	8-12 tons	12-18 tons	16-22 tons	22-28 tons
Change unit (hydr.+ mech.*) <small>*Only available for quick-change unit below</small>	OQ45	OQ60-5 OQ65 Likufix SW33	OQ65 OQ70 OQ70/55 Likufix SW48	OQ65 OQ70 OQ70/55 OQ80 Likufix SW48
Weight [kg] <small>depending on the change unit used</small>	310	570	660	800
Length [mm]	695	855	890	975
Width [mm]	455	640	640	690
hydr. rotary joint 3-fold		(√)	(√)	(√)
Swivel angle [°]	2x40	2x40	2x40	2x40
Permissible tearing force [kNm]	80	130	150	180
Swivel moment [kNm]	19	22	32	33
Torque [kNm]	9	11	11	11
Rotational speed [rpm] at 70l/min	11	10	10	10
Operating pressure [bar]	250	250	250	250 (√) = optional

Tools		OQ45	OQ60-5	OQ65	OQ70	OQ70/55	Likufix SW33	Likufix SW48	
	Pallet fork TK = load-bearing capacity ZL = fork length	TK: 0,8 to ZL: 80 cm	√	√	√		√		
		TK: 2 to ZL: 120 cm			√	√		√	
	Shell grabber	40 cm wide		√	√	√			
		60 cm wide			√	√			
	Tilt bucket	1200	√						
		1400		√		√	√		
		1500		√		√	√	√	
		1600				√	√		√
		1800				√	√		√

More tools can be found at
www.MTS-online.de



Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

Changing in Seconds

Quick-change System



Automation as a competitive advantage


You can turn your excavator into a universal carrier for all types of attachment devices with fully hydraulic quick-change systems.




Change of attachment devices within seconds

The right device for every application: Change your attachment devices in a matter of seconds – fully hydraulically from the driver's cab. Systematic automation of the "factory construction site" not only brings clear competitive advantages, but also ensures maximum safety in the excavation area.

TECHNICAL SPECIFICATIONS

	OQ 40	OQ 45-5	OQ 60-5	OQ 65	OQ Rail	OQ 70	OQ 70/55	OQ 80	OQ 90	OQ 120
Rec. Excavator size [to]	1-5	5-10	8-15	14-22	14-22	15-28	18-32	25-45	40-70	70-120
Structural width [mm]	240	290	340	440	440	450	550	590	750	870
Centre distance [mm]	300	430	480	530	530	600	600	670	750	925
Weight [kg]	30	85	160	170	175	210	230	350	630	1,200
Max. number of couplings	4	5	5	5	8	5	6	6	9	8
1/4"	2	3	2	-	-	-	-	-	1	-
1/2"	2	2	1	2	5	2	2	2	3	3
3/4"	-	-	2	3	3	1	2	2	1	-
1"	-	-	-	-	-	2	2	2	4	3
1 1/2"	-	-	-	-	-	-	-	-	-	2
Electric coupling (optional)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	OQL 210	OQL 310	OQL 410
Rec. Wheel loader size [to]	1-5 tons	5-20 tons	20-30 tons
Weight [kg]	125	325	490
Max. number of couplings	4	6	6
1/2"	4	2	2
3/4"		4	4
Electric coupling (optional)	Yes	Yes	Yes

Attachment compactor

Soil treatment

Digital construction site

Tiltrotator &
quick-change unit

Rock cutter



Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

Rock cutter

Profile-specific Loosening

MTS Rock Cutter





Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

Rock cutter

Four new cutting models with accessories

Powerful Complete System

The MTS rock cutter is a complete cutting system in its own right that excels above all with its high torque and also works efficiently on large excavators.

The clever design of this sturdy add-on device ensures safe operation even under difficult conditions: the cutting depth limitation of the sturdy cross cutting heads prevents the cutter from being jammed, while the robust housing of the gear unit guarantees maximum protection for the motor and hydraulic hoses.

The standard configuration with transport frame and implement for chisel replacement as well as replacement chisels complete the system.

The product range is currently made up of four cutter models. Other versions are in development.

The benefits

- quiet cutting characteristics with optimum performance
- large-area and profile-specific abrasion
- gentle and low-vibration work
- long service life even under extreme abrasion conditions
- Leading-edge technology "made in Germany"
- Service-friendly and highly wear-resistant cross-cutting heads



- **Hydraulic quick-change system**
All systems on the market can be mounted
- **Fully enclosed gear unit**
Maximum protection of all components
- **Spur gear units**
High torque / power transmission
- **Wear bushings on the cutting heads (FF90/75)**
Long service life of cross cutting heads due to simple bushing replacement
- **Cutting depth limitation of the cutting heads**
prevents jamming or stopping of the cross cutting heads

Standard configuration: Transport frame

Document box
Documents at your fingertips

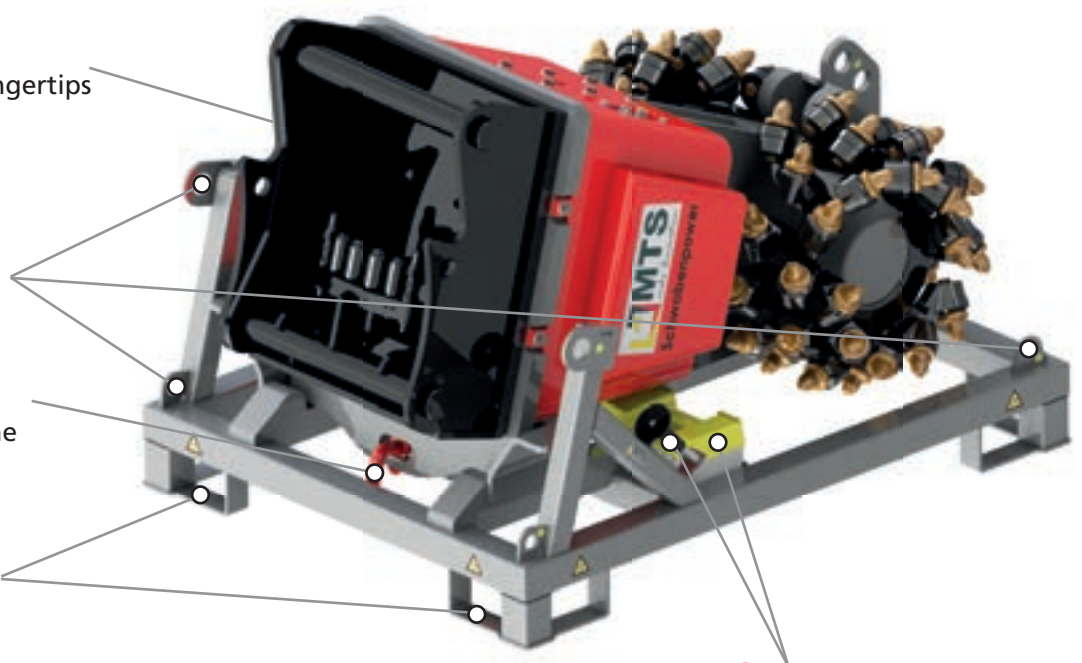
Lashing points
Easy mounting when loading

Locking system
Prevents accidental disconnection from the transport frame

Lifting fork intake
Easy transport with a forklift truck

Standard pallet dimensions
Suitable for standardised transport means

Implements for chisel mounting and replacement chisels
Retrofitting as required





TECHNICAL SPECIFICATIONS

F14-630

F20-750

F30-950

F35-950



Rec. Excavator size [to]	8 to 14	12 to 20	18 to 30	25 to 35
Weight without adapter [kg]	490	950	1,500	1,600
Nominal power	35	45	65	90
max. hydr. operating pressure	350	350	350	350
Required hydraulic oil quantity [l/min]	8-120	120-190	140-210	240-340
Recommended hydraulic oil quantity [l/min]	100	150	180	290
Cutting head torque [Nm (350 bar)]	5,500	10,000	15,000	24,000
Cutting head diameter [mm]	486	550	620	620
Number of chisels [pcs]	2x26	2x24	2x30	2x30
Cutting width [mm]	630	750	950	950
Bridge width at gear shaft [mm]	125	160	170	170

Simple loading and transport

Every minute often counts on the construction site. This is why MTS equips all rock cutter models with a practical transport frame as standard: as a result, the compact attachment devices can be easily fastened during loading using lashing lugs and transported with forklift trucks. A sophisticated locking system prevents the rock cutter from slipping out of the transport frame in the event of an accident or heavy impact.

Attachment compactor

Soil treatment

Digital construction site

Tiltrotator &
quick-change unit

Rock cutter

MTS special





Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

Rock cutter

MTS special

Secure positioning

MTS Pipe Shifting Adapter

Pipe shifting adapter: Laying, transporting, moving

The MTS hydraulic pipe shifting adapter is always the right choice for laying, transporting or moving pipes: The hydraulic shifting unit presses accurately and with maximum permissible pressure in accordance with the manufacturer's specifications, thereby preventing damage to pipes. You can lay pipes up to DN 1000 (with widening up to DN 1500). The pressure range for the corresponding pipe size can be variably adjusted via an optical pressure indicator. The precise positioning of pipes minimises the risk of pipe damage thanks to a sturdy and wear-resistant rubber-protective rim. The lifting hook attached to the pipe shifting adapter also facilitates the transport and manoeuvring of heavy loads in the direct view of the equipment operator.



**Hydraulic
Pipe shifting adapter**



**Hydraulic
Pipe shifting adapter
with extension**



Rec. Excavator size [to]	18-32 tons	18-32 tons
Weight* [kg]	600-700	950
Dimensions L*W*D [mm]	1,150*640*665	1,150*1,930*665
Lifting hook [to]	10	10
Oil requirement [l/min]	20-50	20-50
Pressure range (min/ max) [bar]	120-250	120-250

*depending on the quick-change unit, available for all major change system types



Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

Rock cutter






MTS special

Demolition and Sorting Specialist

EGLI Sorting Grabber






TECHNICAL SPECIFICATIONS MULTI-PURPOSE GRABBER

	SG 2-E	SG 5-E	SG 8-E	SG 10-E	SG 15-E
					
Rec. Excavator size [to]	1-2 tons	4-6 tons	4-8 tons	4.5-10 tons	8-15 tons
Weight [kg]	152	245	360	520	850
Clamping force [kn]	16	16	35 (3.5 to)	35 (3.5 to)	40 (4 to)
Filling volume [l]	37	80	95	180	420
Torque [Nm]	500	660	2,837	2,837	3,130
Opening dimension [mm]	900	1,100	1,220	1,500	1,900
Width [mm]	360	400	500	550	850
Open height [mm]	670	800	856	1,005	1,207
Closed height [mm]	725	860	1,075	1,082	1,350
Number of teeth	2+1	2+1	3+2	3+2	3+2
Cutter parts per shell	-	1	1	1	1
Max. gripping pressure [bar]	250	250	320	320	320
Max. volume flow [l/min]	25	25	40	40	50
Grabber connection	M 18x1.5	M 18x1.5	3/4"	16 S	16 S
Max. rotating pressure [bar]	250	250	250	250	250
Max. volume flow [l/min]	15	15	20	20	38
Rotation connection	M 18x1.5	M 18x1.5	1/2"	12 S	12 S



TECHNICAL SPECIFICATIONS DEMOLITION AND SORTING GRABBER

	SG 20-E	SG 25-E	SG 36-E	SG 54-E
				
Rec. Excavator size [to]	13-20 tons	18-25 tons	23-36 tons	36-54 tons
Weight [kg]	1,225	1,620	1,920	2,865
Clamping force [kn]	52 (5.2 to)	65 (6.5 to)	130 (13 to)	130 (13 to)
Filling volume [l]	550	730	840	1,080
Torque [Nm]	8,508	9,920	9,920	10,200
Opening dimension [mm]	2,095	2,220	2,240	2,439
Width [mm]	1,000	1,000	1,150	1,400
Open height [mm]	1,280	1,470	1,470	1,699
Closed height [mm]	1,460	1,610	1,610	1,940
Number of teeth	0	0	0	0
Cutter parts per shell	1	1	1	1
Max. gripping pressure [bar]	320	320	320	320
Max. volume flow [l/min]	70	120	120	120
Grabber connection	16 S	16 S	20 S	25 S
Max. rotating pressure [bar]	250	250	250	250
Max. volume flow [l/min]	60	60	60	60
Rotation connection	12 S	12 S	12 S	12 S

Innovative EGLI grabber technology

Genuine Swiss quality: The robust clamshell grabber can not only be used as a sorting device, but also as a demolition device for heavy work. It can be set in a standard container with the shovel completely open.



Conventional technology



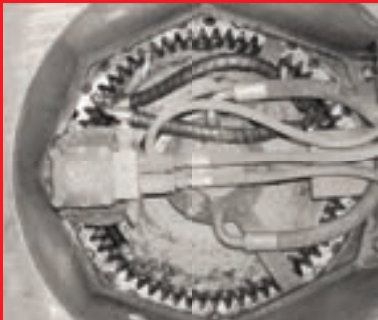
EGLI technology



Your advantage



- Exchangeable, reversible cutters
- Sturdy abutments



- A higher torque with lower power requirement is achieved by two hydraulic motors arranged on the outside of the slewing ring.
- Blocking valve for grabber function



- Shells retain their shape
- More content (perforated shells)
- Better visibility from the sides (no lamella effect)
- No jamming of material
- Less torsional forces in shells



- Open gripper
- Sturdy shell abutments



- Higher forces can be absorbed due to the double slewing ring bearing
- Protected cylinders
- Reinforced pivoting points



Performance with reliability

EGLI Hydraulic Magnet

MTS special

Rock cutter

Tiltrotator &
quick-change unit

Digital construction site

Soil treatment

Attachment compactor



TECHNICAL SPECIFICATIONS

EGLI hydraulic magnet Specialist for sorting and demolition work

The EGLI hydraulic magnet allows you to reduce the steel content of building rubble to virtually 0 percent, thereby preventing damage to construction machinery. This means that you no longer have to worry about the machine downtimes resulting from the damage, but can impress your customers with tidy and easily accessible construction sites. Another benefit: Automated sorting and demolition work saves time and ensures the flawless quality of the recycled material as well as its smooth further processing.

	700	700A	900A	1100A
Weight without adapter [kg]	570	610	1,350	2,000
Operating pressure [bar]	200	200	250	250
Required oil requirement Recommended oil requirement [l/min]	35-70 50	35-70 50	70-200 120	70-200 120
Back-pressure return line back-pressure leakage oil [bar]	25 8	25 8	25 8	25 8
Max. load bearing capacity [kg]	3,000	3,000	5,000	6,000
Power requirement/magnet plate [kW/V]	3.5/230	3.5/230	7.3/230	10.1/230
Generator speed [rpm]	2,000	2,000	3,100	3,100
Discharge control	None	Standard	Standard	Standard
Height without adapter [mm]	660	808	860	960
Outer diameter [mm]	750	750	960	1,100
Forward/return	20 S	20 S	20 S	20 S
Gripping rotating left	-	12 L	12 L	12 L
Leakage oil	15 L	15 L	15 L	15 L



INGENIOUS:
up to 35 cm
drilling diameter
and up to 40 cm
drilling depth

The new way to drill

DRILLER

drilling technology

Attachment compactor

Soil treatment

Digital construction site

Tiltrotator & quick-change unit

Rock cutter

MTS special



FUNCTION & TECHNICAL SPECIFICATIONS

DRILLER drilling unit

Core drilling technology for civil engineering, road and canal construction work: The DRILLER drilling unit for excavators and wheel loaders delivers up to three times the performance of manually drilled work. The sophisticated technology enables safe, emission-free and precise drilling on all levels and is easy to work with.



Establishment of a pipe connection



Horizontal shaft drilling

Technical specifications

DRILLER

Performance [kW]	16.5
Perm. maximum pressure [bar]	350
Working pressure [bar]	200
Perm. max. flow rate [l/min]	120
Perm. min. flow rate [l/min]	50
Max. water pressure [bar]	5
Min. drilling diameter [mm]	100
Max. drilling diameter [mm]	355
Tool stroke [mm]	400
Revolutions [rpm]	300
Insertion end [UNC]	1" 1/4
Height [mm]	1,280
Width [mm]	450
Depth [mm]	450
Weight (without tank) [kg]	300
Weight (with tank) [kg]	360

Benefits

- ✓ Extremely high performance
- ✓ Safe and easy to use
- ✓ Precise on all levels
- ✓ Low maintenance

Attachment compactor

Standard compactor (V series)
Interchangeable adapter compactor (WA series)
Universal compactor (US and UT series)

Attachment compactor

Soil treatment

Rotary mixer
MTS binding agent spreaders (e.p.m)
Limestone rake

Soil treatment

Digital construction site - BIM: MTS toolbox

3D machine control, construction work Digital measurement and accounting
Stake-out and survey work Planning and data processing
Device management and requirements planning

Digital construction site

Tiltrotator & quick-change unit

Tiltrotator
OilQuick quick-change unit
All major change systems on request

Tiltrotator & quick-change unit

Rock cutter

MTS rock cutter

Rock cutter

MTS special

Pipe shifting adapter EGLI hydraulic magnet
EGLI grabber Driller-core drilling unit

MTS special

MTS rental park

Attachment compactor Demolition technology
Soil treatment Grabber
Milling unit 3D excavator control system

MTS rental park

Attachment compactor

Soil treatment

Digital construction site

Tiltrotator &
quick-change unit

Rock cutter

MTS special

MTS rental park

Attachment compactor Universal compactor 3D excavator control system Pipe grabber Lime rake **Universal cutter** EGLI hydraulic magnet Binding agent spreader Attachment compactor Soil recycler **Lime rake** Universal cutter 3D excavator control system EGLI **hydraulic magnet** Lime rake **Binding agent spreader** **Soil recycler** MTS **lime rake** Binding agent spreader Pipe grabber Attachment compactor EGLI grabber

Attachment compactor

The right device for every application



Soil treatment

Digital construction site



Would you have known...?

- ✓ We are the world's largest rental park for attachment compactors.
- ✓ We have almost all 600 rental units in use.
- ✓ All our rental units can be equipped with the standard quick-change types.



Tiltrotator & quick-change unit



Rock cutter

MTS special

Automation in Civil Engineering

MTS Rental Park



MTS rental park

MTS RENTAL PARK

Are you curious, but would rather first test our products in practice?

Our rental park offers you a wide range of products including services at fair rental conditions. You can of course also decide to make a purchase during the rental period.

Attachment compactor

Standard compactor V3 mini	up to 6 tons
Standard compactor V3	up to 6 tons
Standard compactor V4	4-10 tons
Standard compactor V6	8-15 tons
Standard compactor V7	15-25 tons
Standard compactor V8	18-35 tons
Standard compactor V10	21-45 tons
Universal compactor US/UT 8-2	from 6 tons
Interchangeable adapter compactor* V6 WA	8-15 tons
Interchangeable adapter compactor* V8 WA	18-35 tons
Interchangeable adapter compactor* V10 WA	21-45 tons

* WA: Interchangeable adapter system with various base plates (80-200 cm width, pipe, bench and sheepsfoot compactors, sheet piling clamp)

Soil treatment

MTS binding agent spreader e.p.m 1002	10-30 tons
Lime rake (2300 mm)	up to 30 tons
Soil recycler MTS B90-2 and 150-2	5-14 tons
Soil recycler B120-3	16-24 tons
Soil recycler B180-3	20-28 tons
Soil recycler DH (4-17)	27-36 tons

* We offer screening lines from 20-100 mm for all tasks from fine screening to soil conditioning.

Tiltrotator sandwiches

MTS TR10/TR18/TR22/TR28	8-28 tons
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Milling unit

Asphalt cutter AF 300/350	5-10 tons
Asphalt cutter AF 600	13-25 tons
Cutter wheel UF 40	12-25 tons
MTS rock cutter F14-630	8-14 tons
MTS rock cutter F20-750	12-20 tons
MTS rock cutter F30-950	18-30 tons
MTS rock cutter F35-950	25-35 tons

3D excavator control system

MTS-NAVI (on pre-equipped excavators)

MTS-Rover

MTS-BASIS

Hydraulic hammers

Hydraulic hammer SB 302	4.5-9 tons
Hydraulic hammer SB 552	9-15 tons
Hydraulic hammer MB 1200	15-26 tons
Hydraulic hammer MB 1500	18-29 tons
Hydraulic hammer HB 2000	22-40 tons



Hydraulic magnets

EGLI magnet MAG 700A	from 12 tons
EGLI magnet MAG 1100A	from 20 tons

Grabber/pipe laying

Pipe grabber KBRG.1-700	16-23 tons
EGLI sorting grabber SG 5	2-5 tons
EGLI sorting grabber SG 8	4-8 tons
EGLI sorting grabber SG 10	5-10 tons
EGLI sorting grabber SG 15	8-15 tons
EGLI sorting grabber SG 20	14-20 tons
EGLI sorting grabber SG 25	18-25 tons
EGLI sorting grabber SG 36	25-36 tons
RSA mechanical	14-40 tons
HRSA hydraulic	16-30 tons
Pipefix mech. (340-680 mm)	up to 20 tons

Other attachment devices

2-shell grabber (400-800 mm)	up to 25 tons
Pulveriser excavator	22-35 tons
Müller free-riding pile driver	18-30 tons
Drilling auger (350/600mm)	18-50 tons
Driller core drilling machine	2.5-30 tons

Other units on request

Your contact partners

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Note:

Quick-change adapter for all conventional systems

Set-up fee: 150, Euro.

Our General Terms and Conditions of Sale and Rental are applicable, which can be viewed on the Internet at www.MTS-online.de/agb.html

The prices do not include the statutory value added tax. Shipping will be at the expense of the customer.



Your specialist for automation in civil engineering and road construction

Company

MTS has been the market leader for automation strategies in the civil engineering sector for many years now thanks to numerous innovative product developments. The main focus of our product spectrum, which ranges from attachment compactors to 3D control systems for excavators, is to optimize the efficiency and cost-effectiveness of work flows on construction sites in order to help construction companies safeguard their survival in the face of increasing cost pressure.

Consulting and service

Our MTS consulting and service team are on hand to provide you with advice and assistance on any matter, drawing from their extensive expertise and many years of experience in the industry. Whether it's product advice, construction site supervision or mechanical testing of the soil: Just ask us!

Training sessions and seminars

We offer a comprehensive range of training programs for site managers, equipment operators and technicians in order to ensure the optimal use of our products in your construction projects. In this environment we convey lively and practically technical know how and sales expertise as well as tips and tricks concerning practical use.

Rental park and demo site

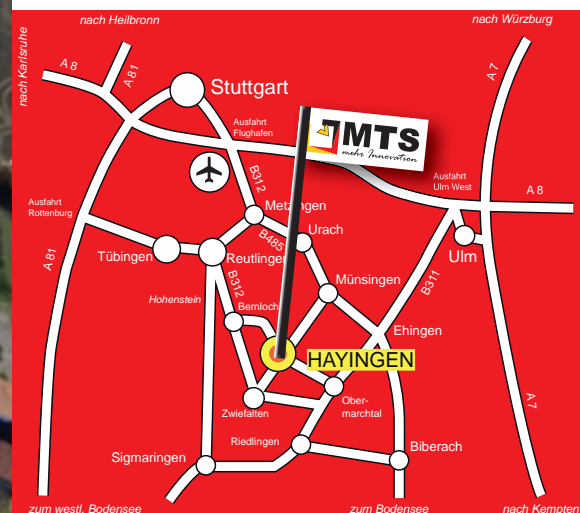
See for yourself: We present our entire product range live and in colour on our test site. We also offer rental of our equipment on request and at fair prices so that you can also test the benefits of our products on-site.

More info: www.MTS-online.de



You can find us here

48° 16' 23.8" North, 9° 28' 20.2" East
UTM Right 32535043 / High 5346783



New bases and partnerships You can find us here



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