

Wacker Neuson compact equipment offers power and manoeuvrability on the spot.
Any time, any place.

We consider it a constant duty to ensure that our promise regarding our products and services is fulfilled:

Reliability, Trust, Quality, Reactivity, Flexibility and Innovation.

Compact construction equipment of the Wacker Neuson brand also does the business where others can only stand and watch. Our products prove their worth through quality, power, intelligent hydraulics, compact dimensions, innovative technology, high productivity and reliability. This gives a form of set-up that only Wacker Neuson – the specialist in compact equipment – is capable of.

You too can take advantage of this bespoke capability. The Wacker Neuson compact class is in a class of its own. With success stamped right through it.

1000188017/01/2010/Heidmair/Gutenberg

Vertical Digging System (VDS)

Any work of genius is simple.
By Wacker Neuson.

NEW
7 MODELS FROM
1.7t TO 5t
OPERATING
WEIGHT



**WACKER
NEUSON**



**WACKER
NEUSON**



25%
SAVINGS IN
trenching and
refilling.

15° VDS

The smooth superstructure inclination of 15° compensates for gradients up to 27 %.
It's as easy as adjusting a car seat.

The job and the terrain are a given. Your leeway is the excavator. You are always in your best (working) position with Wacker Neuson Vertical Digging System (VDS).

Preparatory work is costly. Full swing force is required. Security must be guaranteed. No time for difficult manoeuvres. You can realize up to 25% savings: Thanks to the smooth superstructure inclination up to 15°, gradients can be compensated for.

This way, you can turn an arduous challenge into a performance edge:

- Increased productivity, improved efficiency: shorter digging time through vertical digging.
- Up to 25 % material and time saving during excavation.
- Up to 25 % material and time saving during refilling.
- Up to 20 % more stability at 15° gradient and full swing.
- Full swing above 360°.
- Normal sitting position, for stress-free work.
- Simple and robust structure.

* At 15° gradient.

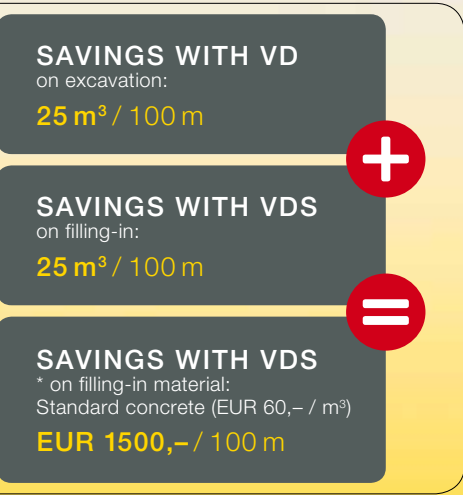
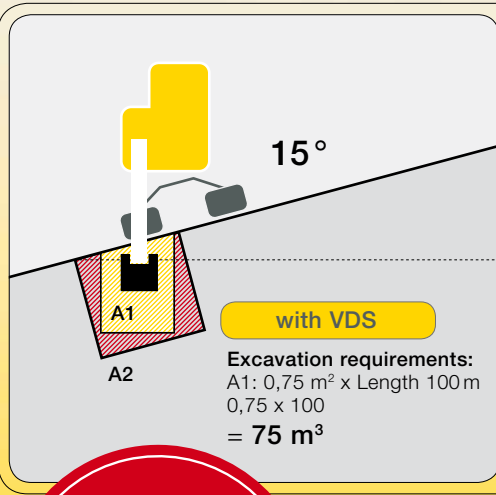
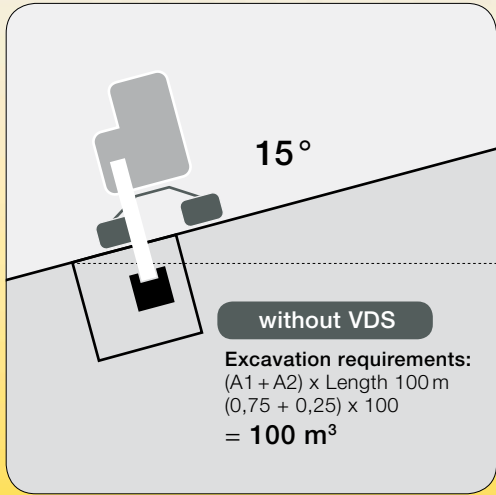
Always sure-footed:
 When it comes to costing.
 When it comes to excavating.
 When it comes to your customers.
With VDS from Wacker Neuson.

Spot-on for maximum efficiency, quality and security:

- When excavating walls / foundations.
- When working on embankments.
- When laying cables and pipelines.
- When straddling kerbs.
- When using tool attachments such as hydraulic breaker, auger, etc ...

The best position, always, at the touch of a button:
 The Vertical Digging System (VDS) ...

- has a 20-year pedigree
- comes with a 10-year guarantee
- is easy to operate and is always ready to go.

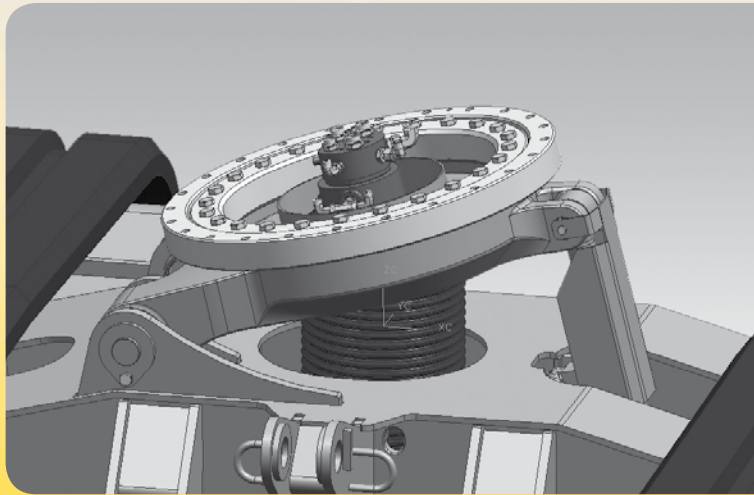


SAVINGS
 per 100m
1500,-*
 on filling-in
 material alone

Basis of calculation:
 Standard trench
 (as per Austrian standard 1610)
 H 1,25 m, WB 0,6 m.
 On a 15° gradient.

Only what is easy and logical is actually done.

- 1 For Wacker Neuson excavator models 1703 - 2404 operate the VDS lever underneath the driver's seat.
- 2 For Wacker Neuson excavator models 28Z3 - 50Z3 operate the right Joystick and push the VDS button at the same time.

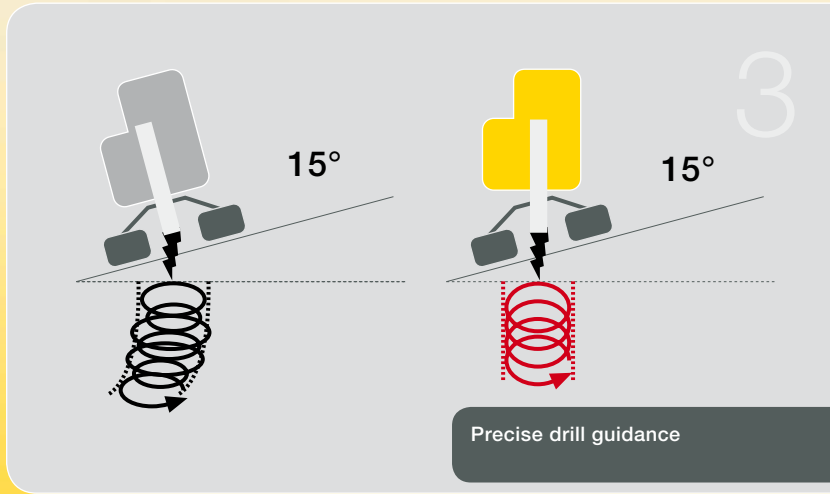
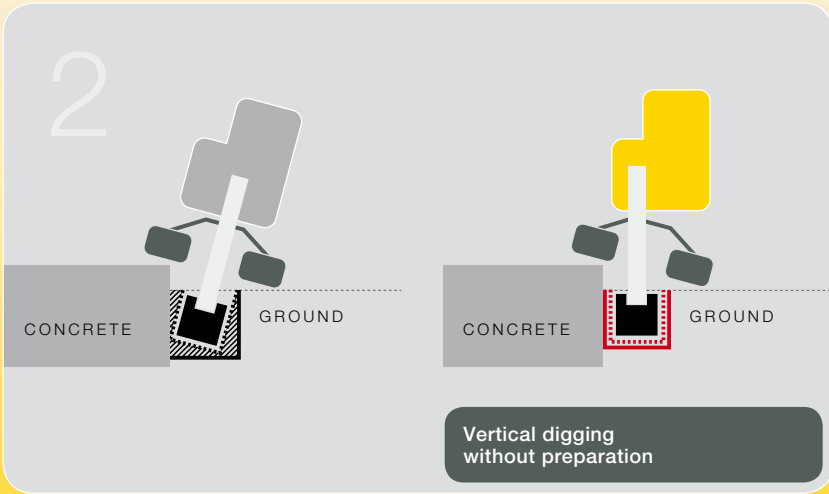
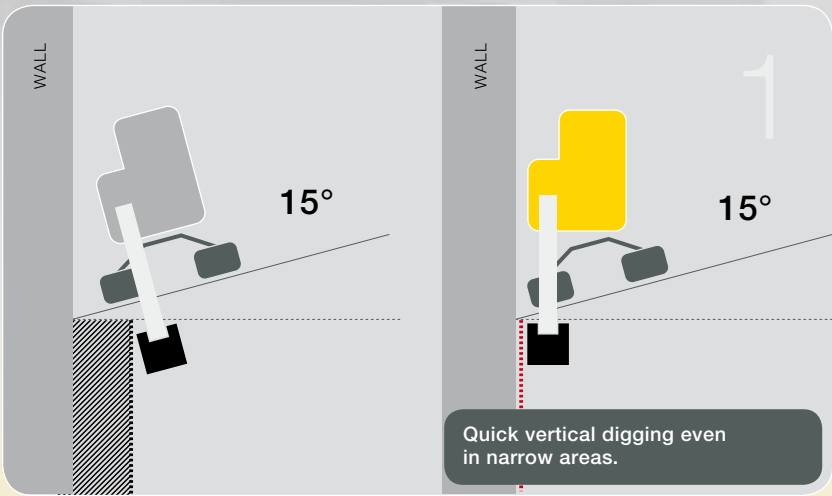


** 10 Years vds guarantee for tilting bracket and storage, subject to proof of proper maintenance. Hydraulic cylinder and flexible hoses are not included.

Whoever shows proof of flexibility always has an edge. Wacker Neuson Vertical Digging System (VDS) is in a class of its own. The intelligent upgrade for Wacker Neuson Excavators.

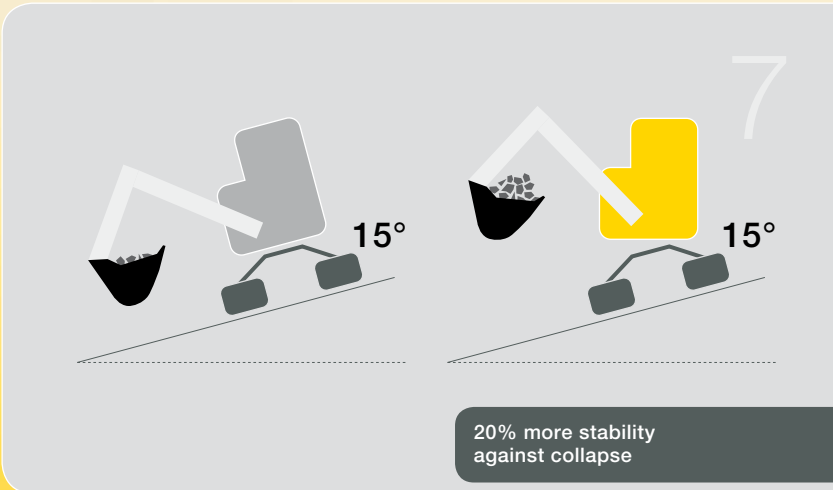
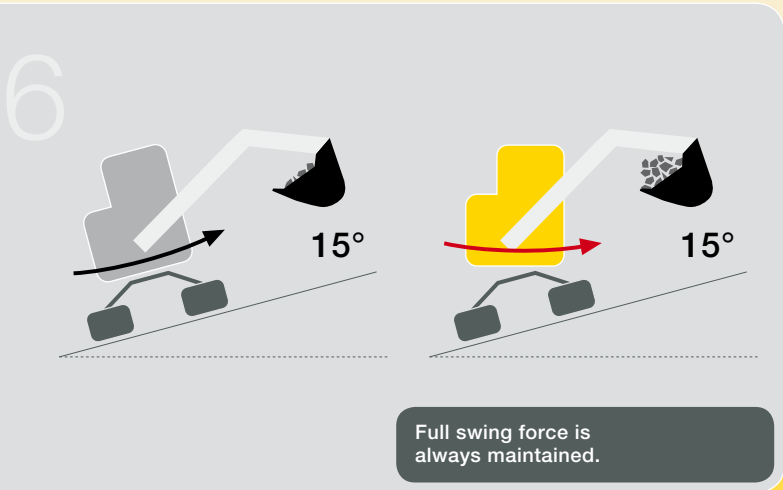
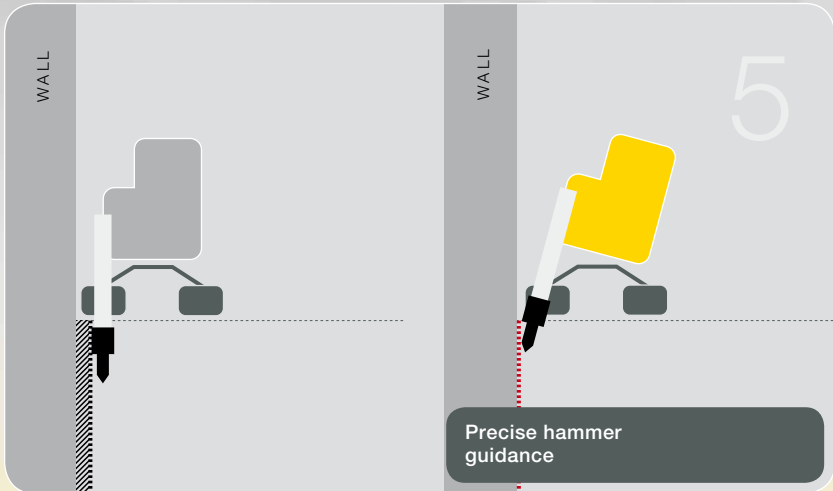
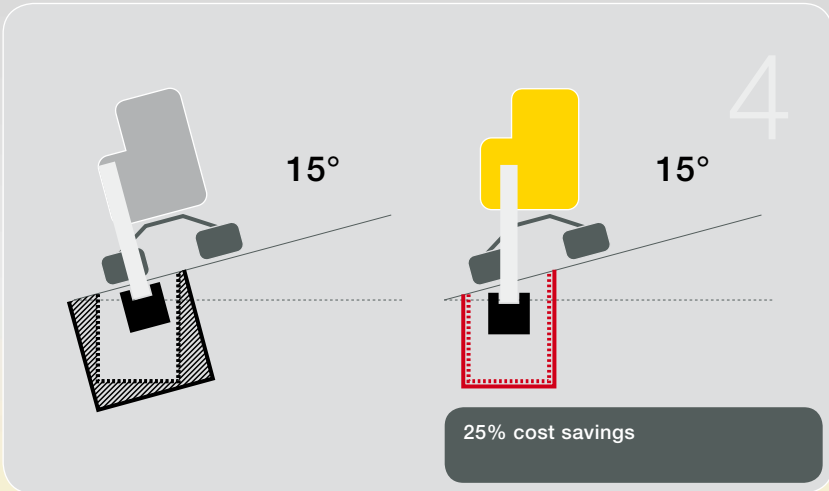
REFERENCE WITH EVERY CONTRACT
TOP ACHIEVEMENT FROM THE POSITION OF
THE SUPERIOR

- 1 Rehabilitation
Exposing a wall. You must dig vertically.
Very narrow space. Time is pressing.
A case for the Vertical Digging System (VDS).
- 2 Work preparation
Digging vertically between the ground and raised concrete base without preparation.
A case for the Vertical Digging System (VDS).
- 3 Using an auger
The auger is very easy to use with precision for a vertically-standing machine. This is important for many drillings with the same quality and dimension.
A case for the Vertical Digging System (VDS).



- 4 **Standard digging:**
Pipework and cable work
Using VDS simply saves up to 25% of the costs of digging and refilling trenches in road works. An (ideal) case for the Vertical Digging System (VDS).
- 5 **Hydraulic hammer in action**
Steer the hammer exactly across walls and in corners, and use it with precision. A case for the Vertical Digging System (VDS).
- 6 **Swing against the slope**
Full swing force must always be maintained. A case for the Vertical Digging System (VDS).
- 7 **Stability is priceless.**
Gain up to 20% more stability and up to 30% more dumping height on sloping grounds (at 15° gradient).

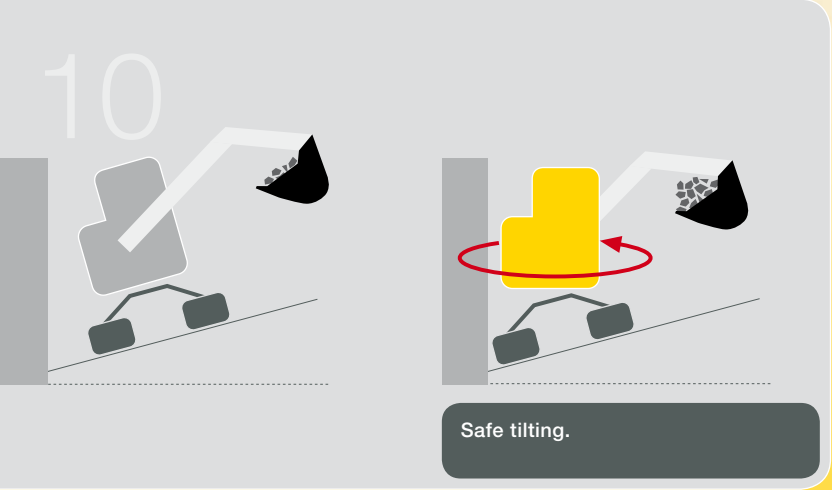
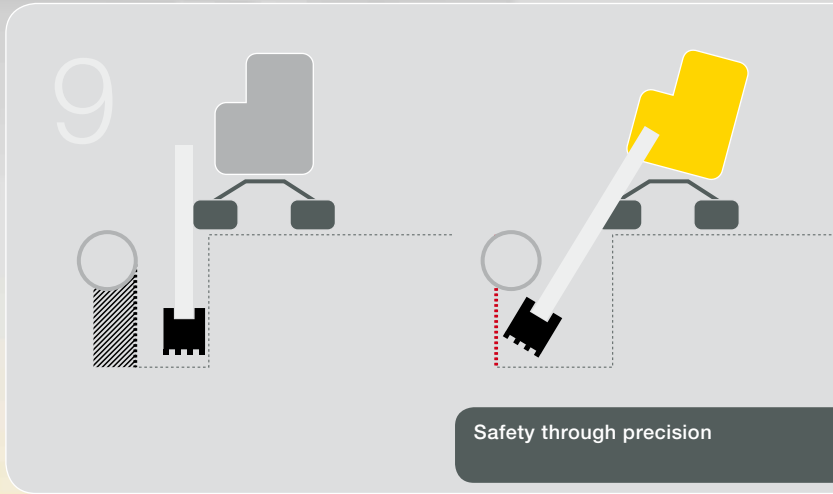
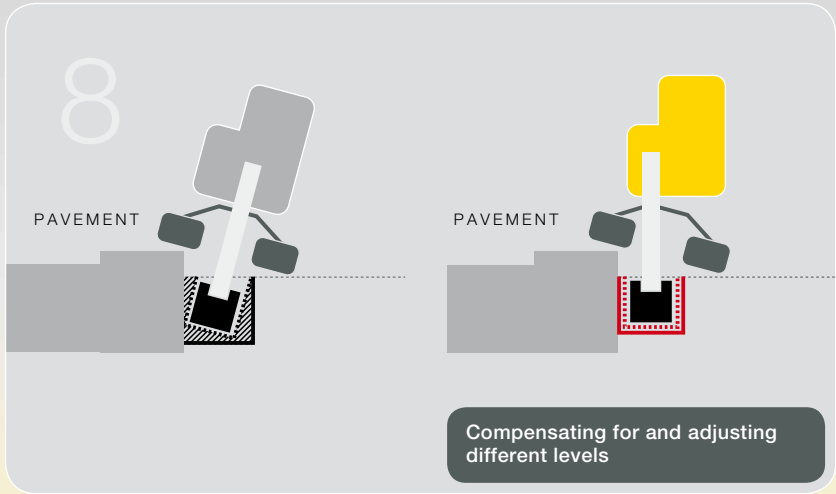
THE **VERTICAL DIGGING SYSTEM (VDS)** WAS DESIGNED IN SUCH A WAY THAT IT IS ROBUST AND EXTREMELY USER-FRIENDLY. THANKS TO ITS FUNCTIONS, THE EXCAVATOR CAN BE USED IN A LOT OF DIFFERENT APPLICATIONS. MOREOVER IT ENHANCES WORK QUALITY ASSURANCE.



8 Using Vertical Digging System (VDS) in the city:
Curbside, curbstone
Compensate for different levels by pressing a button and adapt flexibly at any time. A case for the Vertical Digging System (VDS).

9 Exposing pipes
Precision work. Human, machine and infrastructure security. A case for the Vertical Digging System (VDS).

10 Safe tilting
with VDS and Zero Tail you can drive up to a wall and do the work even on uneven terrain, without damaging it with the cabin while swinging



25%
SAVINGS IN
trenching and
refilling.

Our approach is professional:
**This concerns both the quality of work
and attitude to health and the use of
manpower and machines.**

A small angle for geometry – but often
a decisive size for taking a success-
oriented position. Practical and strategic.
**Wacker Neuson Vertical Digging
System (VDS). A result of 20 years
experience.**



Adopting the right and safe working position on a building site is as important as having the right tool and optimum lighting:

Design pays off for everything: It brings in comfort for the driver and is the strong backbone of quality and security.

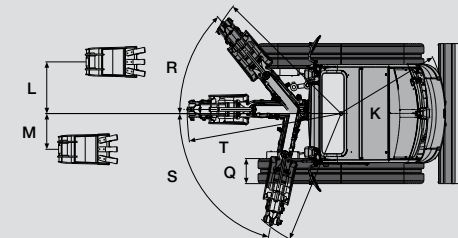
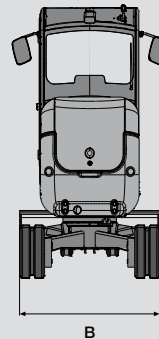
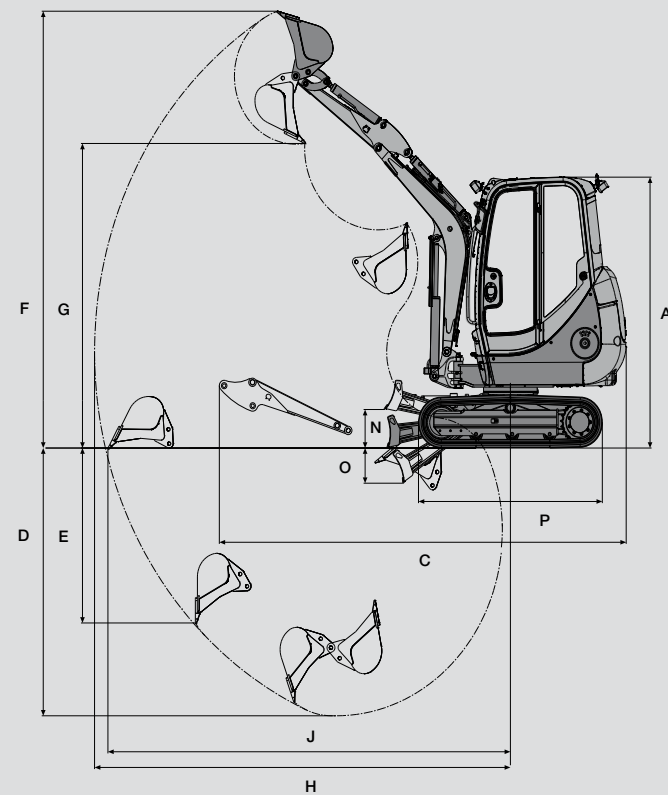
“Whoever watches his back, has built on good health”.



Productive work requires the right setting.

Improvising from time to time is necessary on a building site. However, it should not endanger the lives of the driver, the workers within the vicinity of the machine, and the machine itself. Temporary support is a case for the personnel and productivity! Here, the borderline between improvising and negligence is very small, and crossing it can be very costly.





DIMENSIONS		1703 VDS	2003 VDS	2404 VDS	28Z3 VDS	3503 VDS	38Z3 VDS	50Z3 VDS
A	Height	2435 mm	2450 mm	2520 mm	2525 mm	2520 mm	2565 mm	2670 mm
B	Width	990 / 1300* mm	990 / 1300* mm	1400 mm	1570 mm	1620 mm	1740 mm	1990 mm
C	Transport length (arm lowered)	3563 mm	3833 mm	4034 mm	4199 mm	5170 mm	4747 mm	5490 mm
LONG / SHORT DIPPER ARM								
D	Max. digging depth	2140 / 2340 mm	2400 / 2600 mm	2440 / 2640 mm	2420 / 2620 mm	3120 / 3417 mm	3040 / 3290 mm	3400 / 3650 mm
E	Max. vertical digging depth	1370 / 1550 mm	1570 / 1750 mm	1600 / 1790 mm	1845 / 2035 mm	2105 / 2385 mm	2340 / 2560 mm	2570 / 2785 mm
F	Max. digging height	3520 / 3650 mm	3930 / 4050 mm	4020 / 4150 mm	4300 / 4430 mm	5020 / 5220 mm	4600 / 4730 mm	5410 / 5570 mm
G	Max. dumping height	2570 / 2700 mm	2800 / 2930 mm	2830 / 2950 mm	2960 / 3090 mm	3735 / 3935 mm	3390 / 3520 mm	3790 / 3950 mm
H	Max. digging radius	3800 / 4000 mm	4150 / 4350 mm	4155 / 4345 mm	4615 / 4815 mm	5270 / 5546 mm	5300 / 5535 mm	6000 / 6240 mm
J	Max. range on the ground	3680 / 3880 mm	4025 / 4220 mm	4015 / 4215 mm	4445 / 4645 mm	5150 / 5432 mm	5135 / 5350 mm	5830 / 6075 mm
K	Tail swing radius	1160 mm	1160 mm	1159 mm	760 mm	1400 mm	870 mm	995 mm
	Max. rear protrusion when the superstructure rotates 90°	510 mm	510 mm	510 mm	0 mm	590 mm	0 mm	0 mm
L	Max. jib shifting in the middle of the excavator bucket on the right side	517 mm	517 mm	516 mm	764 mm	685 mm	680 mm	960 mm
M	Max. jib shifting in the middle of the excavator bucket on the left side	357 mm	357 mm	357 mm	533 mm	415 mm	650 mm	855 mm
N	Max. lifting height of dozer blade above ground level	260 mm	245 mm	350 mm	380 mm	410 mm	380 mm	415 mm
O	Max. dozer digging depth	230 mm	238 mm	320 mm	419 mm	490 mm	460 mm	455 mm
P	Running gear length	1605* mm	1710 mm	1840 mm	2006 mm	2075 mm	2075 mm	2500 mm
Q	Track width	230 mm	250 mm	250 mm	300 mm	300 mm	300 mm	400 mm
R	Max. arm system swivel angle to the right	48 °	48°	48 °	50 °	45 °	55 °	61 °
S	Max. arm system swivel angle to the left	77 °	77°	77 °	75 °	80 °	70 °	65 °
T	Jib swivel radius	1960 mm	2069 mm	1700 mm	2054 mm	2060 mm	2377 mm	2692 mm
	Max. breaking force	10,6 kN	12,2 kN	14,6 kN	15,4 kN	20,6 kN	21,9 kN	26,6 kN
	Max. breakaway torque	17,7 kN	18,8 kN	19,6 kN	22,5 kN	30,3 kN	28,6 kN	33,8 kN
	Vertical Digging System (VDS)	15°	15°	15°	15°	15 °	15°	15°
	Standard digger stick	980 / 1180 mm	1050 / 1250 mm	1050 / 1250 mm	1050 / 1250 mm	1335 / 1635 mm	1400 / 1650 mm	1500 / 1750 mm

* telescopic undercarriage



	1703 VDS	2003 VDS	2404 VDS	2823 VDS	3503 VDS	3823 VDS	5023 VDS
 OPERATING DATA							
Transport weight with canopy	1860 kg	1980 kg	2330 kg	2817 kg	3639 kg	3795 kg	–
Transport weight with cabin	1950 kg	2070 kg	2428 kg	2910 kg	3734 kg	3890 kg	5240 kg
Operating weight with canopy	1990 kg	2100 kg	2452 kg	2977 kg	3839 kg	3955 kg	–
Operating weight with cabin	2080 kg	2190 kg	2550 kg	3070 kg	3934 kg	4050 kg	5520 kg
 ENGINE							
Make/type	Yanmar 3TNV76	Yanmar 3TNV76	Yanmar 3TNV76	Yanmar 3TNV76	Yanmar 4TNV88	Yanmar 3TNV88	Yanmar 4TNV88
Design	Yanmar 3TNV76 diesel engine	water-cooled 3-cylinder diesel engine	water-cooled 3-cylinder diesel engine	water-cooled 3-cylinder diesel engine	water-cooled 4-cylinder diesel engine	water-cooled 3-cylinder diesel engine	water-cooled 4-cylinder diesel engine EPA III
Max. engine power	17,9 kW (24,3 PS)	17,9 kW / 24,3 PS	17,9 kW (24,3 PS)	17,9 kW (24,3 PS)	35,4 kW / 48,1 PS	27,1 kW (36,8 PS)	35,4 kW (48,1 PS)
Flywheel power in accordance with ISO	13,2 kW (17,9 PS)	13,2 kW / 17,9 PS	13,2 kW (17,9 PS)	15,2 kW (20,7 PS)	23,7 kW / 32,2 PS	21 kW (28,6 PS)	28,1 kW (38,2 PS)
Cylinder capacity	1116 cm³	1116 cm	1116 cm³	1115 cm³	2189 cm³	1642 cm³	2189 cm³
Rated speed	2200 min ⁻¹	2200 min ⁻¹	2200 min ⁻¹	2500 min ⁻¹	2000 min ⁻¹	2400 min ⁻¹	2400 min ⁻¹
Battery	12 V / 45 Ah	12 V / 45 Ah	12 V / 45 Ah	12 V, 44 Ah	12 V / 71 Ah	12 V, 71 Ah	12 V / 88 Ah
Diesel tank volumes	24 l	24 l	24 l	35,2 l	50 l	44 l	83 l
 HYDRAULIC SYSTEM							
Pump	Double variable and double gear pump	Double variable pump and gear pump	Double variable and double gear pump	Double variable and double gear pump	Double variable pump and gear pump	Double variable and double gear pump	Double variable and double gear pump
Flow capacity	23,9 + 23,9 + 19,1 + 6,5 l/min	23,9 + 23,9 + 19,1 + 6,5 l/min	2 x 26,15 l/min	2 x 30,5 + 21,2 + 7,2 l/min	44,5 + 44,5 + 25,1 l/min	2 x 40 + 26,3 + 11,3 l/min	2 x 57 + 41,4 + 11,7 l/min
Working and driving pressure	200 bar	200 bar	240 bar	225 bar	240 bar	240 bar	240 bar
Vertical mill working pressure	125 bar	150 bar	150 bar	206 bar	200 bar	210 bar	215 bar
Hydraulic oil cooler	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Hydraulic tank content	21 l	21 l	21 l	26,5 l	50 l	38,5 l	80 l
Hydraulic telescopic drawbar	990 / 1300 mm	990 / 1300 mm	–	–	–	–	–
 UNDERCARRIAGE							
2 travelling speeds	2,8 km/h, 5,6 km/h	2 km/h, 4 km/h	2,25 km/h, 3,8 km/h	2,1 km/h und 3,8 km/h	2,8 km/h, 5,5 km/h	2,8 km/h und 4,6 km/h	2,7 km/h, 4,6 km/h
Gradeability	30° (58 %)	30° (58 %)	30° (58%)	30°/58%	30° (58 %)	30°/58%	30° (58 %)
Track width	230 mm	250 mm	250 mm	300 mm	300 mm	300 mm	400 mm
Number of rollers on each side	3	4	3	3	4	4	4
Ground clearance	175 mm	175 mm	285 mm	285 mm	280 mm	225 mm	320 mm
Ground contact pressure	0,27 kg/cm²	0,28 kg/cm²	0,28 kg/cm²	0,27 kg/cm²	0,35 kg/cm²	0,34 kg/cm²	0,28 kg/cm²
Upper carriage revolutions per minute	10 min ⁻¹	10 min ⁻¹	10 min ⁻¹	10,25 min ⁻¹	9,2 min ⁻¹	8,8 min ⁻¹	8,7 min ⁻¹
 DOZER BLADE							
Width	990 mm	990 mm	1400 mm	1570 mm	1620 mm	1740 mm	1990 mm
Height	260 mm	260 mm	300 mm	290 mm	370 mm	345 mm	380 mm
 NOISE EMISSION							
Noise level (L _w) in accordance with standard 2000/14/EG	93 dB(A)	93 dB(A)	93 dB(A)	93 dB (A)	95 dB(A)	95 dB (A)	96 dB(A)
Sound level (L _p) in accordance with ISO 6394	77 dB(A)	75 dB(A)	–	–	74 dB(A)	77 dB (A)	77 dB(A)



LIFTING POWER 1703 VDS short dipper arm

A	1,5 m	2,0 m	2,5 m	3,0 m	max
	0°	0°	0°	0°	0°
B	90°	90°	90°	90°	90°
2,5 m	–	–	368*	–	387*
	–	–	368*	–	387*
2,0 m	–	–	381*	389*	391*
	–	–	381*	365	365
1,0 m	–	670*	508*	432*	410*
	–	636	462	356	316
0,0 m	1267*	826*	600*	470*	439*
	950	608	444	347	326
-1,0 m	992*	693*	492*	–	471*
	962	611	447	–	436
-1,5 m	660*	–	–	–	466*
	660*	–	–	–	466*

LIFTING POWER 2003 VDS short dipper arm

A	1,5 m	2,0 m	2,5 m	3,0 m	max
	0°	0°	0°	0°	0°
B	90°	90°	90°	90°	90°
2,5 m	–	–	353*	373*	376*
	–	–	353*	328*	320
2,0 m	–	–	390*	375*	378*
	–	–	390*	326	275
1,0 m	–	746*	541*	446*	392*
	–	546	401	308	240
0,0 m	1324*	879*	634*	495*	414*
	801	512	376	293	247
-1,0 m	1059*	747*	554*	–	435*
	816	516	377	–	316
-1,5 m	779*	555*	–	–	429*
	779*	531	–	–	429*

LIFTING POWER 2404 VDS short dipper arm

A	2,0 m	2,5 m	3,0 m	3,5 m	max
	0°	0°	0°	0°	0°
B	90°	90°	90°	90°	90°
2,5 m	–	520*	545*	–	555*
	–	520*	472	–	448
2,0 m	–	585*	560*	–	561*
	–	585*	468	–	395
1,0 m	1129*	815*	670*	591*	586*
	799	581	448	361	355
0,0 m	1295*	941*	737*	–	621*
	767	558	435	–	371
-1,0 m	1081	801*	–	–	654*
	773	561	–	–	484
-1,5 m	769*	–	–	–	645*
	769*	–	–	–	645*

LIFTING POWER 3503 VDS short dipper arm

A	1,5 m	2,5 m	3,5 m	4,5 m	max
	0°	0°	0°	0°	0°
B	90°	90°	90°	90°	90°
3,0 m	–	–	726*	–	767*
	–	–	726*	–	587
2,0 m	–	1131*	858*	–	787*
	–	1131*	722	–	496
1,0 m	–	1738*	1057*	834*	819*
	–	1086	686	483	466
0,0 m	–	1918*	1181*	–	860*
	–	1050	659	–	479
-1,0 m	3353*	1778*	1139*	–	904*
	2501	1053	659	–	552
-2,0 m	2345*	1308*	–	–	923*
	2345*	1083	–	–	799

1703 VDS long dipper arm

1,5 m	2,0 m	2,5 m	3,0 m	max
0°	0°	0°	0°	0°
90°	90°	90°	90°	90°
–	–	310*	–	348*
	–	310*	–	348*
–	–	330*	342*	352*
	–	330*	342*	328
–	598*	466*	403*	372*
	598*	461	355	287
1284*	807*	584*	462*	401*
	936	439	342	296
1080*	735*	536*	–	441
	943	599	–	380
820*	561*	–	–	463*
	820*	561*	–	463*

2003 VDS long dipper arm

1,5 m	2,0 m	2,5 m	3,0 m	max
0°	0°	0°	0°	0°
90°	90°	90°	90°	90°
–	–	–	334*	355*
	–	–	334*	298
–	–	334*	349*	362*
	–	–	338	265
–	690*	518*	437*	380*
	574	418	324	237
1422*	901*	648*	510*	404*
	835	539	396	243
1190*	819*	609*	459*	428*
	839	535	391	259
946*	668*	481*	–	432*
	849*	541	–	371

2404 VDS long dipper arm

2,0 m	2,5 m	3,0 m	3,5 m	max
0°	0°	0°	0°	0°
90°	90°	90°	90°	90°
–	–	474*	–	501*
	–	470	–	399*
–	508*	501*	506*	509*
	508*	465	364	356
1020*	752*	626*	556*	534*
	799	576	443	322
1277*	918*	719*	589*	569*
	754	547	425	334
1141*	845*	627*	–	607*
	755	545	426	469
911*	636	–	–	618*
	769	558	–	549*

3503 VDS long dipper arm

1,5 m	2,5 m	3,5 m	4,5 m	max
0°	0°	0°	0°	0°
90°	90°	90°	90°	90°
–	–	616*	–	689*
	–	616*	–	520
–	914*	762*	710*	712*
	914*	726	495	448
–	1565*	981*	785*	744*
	1099	687	480	423
–	1884*	1145*	842*	784*
	1042	656	467	432
3849*	1842*	1161*	–	829*
	2448	1035	–	486
2919*	1498*	905*	–	870*
	2503	663	–	650

LIFTING POWER 2823 VDS short dipper arm

A	2,0 m	2,5 m	3,0 m	3,5 m	max	
	0°	0°	0°	0°	0°	0°
B	90°	90°	90°	90°	90°	90°
2,5 m	–	–	495*	495*	516*	516*
	–	–	464	495*	403	454
2,0 m	–	628*	549*	508*	501*	501*
	–	628*	448	504	348	394
1,0 m	–	912*	690*	573*	507*	507*
	–	608	413	469	329	376
0,0 m	1366*	979*	743*	589*	517*	517*
	715	815	392	449	289	331
-1,0 m	1044*	783*	579*	–	506*	506*
	731	830	455	–	375	428

LIFTING POWER 3823 VDS short dipper arm

A	2,0 m	3,0 m	4,0 m	max	
	0°	0°	0°	0°	0°
B	90°	90°	90°	90°	90°
3,0 m	–	–	752*	752*	763*
	–	–	552	580	535
2,0 m	–	918*	801*	792*	792*
	–	886	540	568	445
1,0 m	–	1302*	932*	836*	836*
	–	820	516	544	414
0,0 m	2968*	1533*	1030*	893*	893*
	1364	1437	739	525	426
-1,0 m	2668*	1505*	970*	963*	963*
	1376	1449	732	524	493
-2,0 m	1905*	1065*	–	1029*	1029*
	1420	1493	–	745	785

LIFTING POWER 5023 VDS short dipper arm

A	2,0 m	3,0 m	4,0 m	5,0 m	max	
	0°	0°	0°	0°	0°	0°
B	90°	90°	90°	90°	90°	90°
3,0 m	–	–	965*	965*	1018*	1018*
	–	–	829	894	617	669
2,0 m	–	1501*	1155*	1048*	1049*	1049*
	–	1233	791	856	537	585
1,0 m	–	2196*	1406*	1122*	1095*	1095*
	–	1114	743	808	511	558
0,0 m	–	2459*	1563*	–	1153*	1153*
	–	1062	711	776	528	577
-1,0 m	4357*	2329*	1511*	–	1218*	1218*
	2082	1061	706	771	607	663
-2,0 m	3075*	1738*	–	–	1258*	1258*
	2149	1098	–	–	866*	942

2823 VDS long dipper arm

2,0 m	2,5 m	3,0 m	3,5 m	max
0°	0°	0°	0°	0°
90°	90°	90°	90°	90°
–	–	430*	–	466*
	–	430*	–	356*
–	–	498*	468*	458*
	–	450	348	275
–	855*	654*	547*	466*
	539	412	327	251
1410*	977*	736*	587*	478*
	805	503	311	262
1145*	840*	635*	–	479*
	815	504	–	328

3823 VDS long dipper arm

2,0 m	3,0 m	4,0 m	max	
0°	0°	0°	0°	0°
90°	90°	90°	90°	90°
–	–	650*	748*	748*
	–	555	523	549
–	–	724*	787*	787*
	–	538	457	479
–	1192*	871*	825*	825*
	780	510	426	449
2989*	1479*	995*	882*	882*
	1414	729	437	460
2797*	1518*	1001*	965*	965*
	1417	714	502	528
2181*	1236*	–	1058*	1058*
	1454	732	686	720

5023 VDS long dipper arm

2,0 m	3,0 m	4,0 m	5,0 m	max	
0°	0°	0°	0°	0°	0°
90°	90°	90°	90°	90°	90°
–	–	843*	929*	929*	929*
	–	829	555	604	555
–	1275*	1043*	961*	960*	960*
	1246	787	545	486	532
–	2017*	1315*	1060*	1005*	1005*
	1112	733	522	463	508
–	2396*	1511*	1127*	1060*	1060*
	1041	693	505	475	522
4685*	2365*	1524*	–	1124*	1124*
	2195	680	–	537	589
3567*	1928*	–	–	1184*	1184*
	2080	1056	–	722	789

conter weight

- A Projection from the middle of the turntable
B Load sling height above ground level

* Lifting force is restricted hydraulically. All values in the table are given in kg, at horizontal standing on hard ground and without bucket. If a bucket or other work tool is attached, the lifting power or tipping load is reduced by their weight. Basis of calculations: as ISO 10567. The lifting power of the compact excavator is limited by the adjustment of the pressure control valve and by the tipping security. Neither 75 % of the static tipping load nor 87 % of the hydraulic lifting power is exceeded.

