

CUTTING UNITS



ADVANTAGES OF CUTTING TECHNOLOGY

- Extremely economic
- Extremely accurate cut
- Low vibration
- Low noise
- Suitable for underwater operations
- Low maintenance
- Suitable for narrow and deep trenches
- Recycling of excavated material



HYDRAULIC TRANSVERSE CUTTING UNITS TRUE ALLROUNDERS

INNOVATIVE ENGINEERING – INDIVIDUAL SOLUTIONS – COMMITTED CUSTOMER SERVICE

TEREX' mission is to make innovative products. For over 40 years the TEREX Group has been manufacturing roadheading machines with cutting heads for mining and tunnelling operations. In the field of hydraulic transverse cutting units TEREX is the world-wide market leader and epitomises cutting-edge technology made in Germany.

From civil engineering to landscape gardening – TEREX' cutting units show their strength and flexibility in a multitude of applications. Various hydraulic motors and cutting heads can be attached to TEREX | Schaeff cutting units, enabling an optimum adjustment to operating conditions. The product range comprises seven types of transverse cutting units with hydraulic drive powers of 30 HP, 40 HP, 60 HP, 80 HP, 120 HP, 160 HP and 200 HP respectively.

TEREX also offers solutions for special applications, such as cutting drums and slot cutting drums in various widths and diameters, drums for cutting tree stumps, and anti-dust systems for indoor operations. Behind TEREX' products you will find a network of distributors who know the business inside out. Local dedicated service and support teams offer customers professional support before, during and long after the sale.

READY-MADE SOLUTIONS

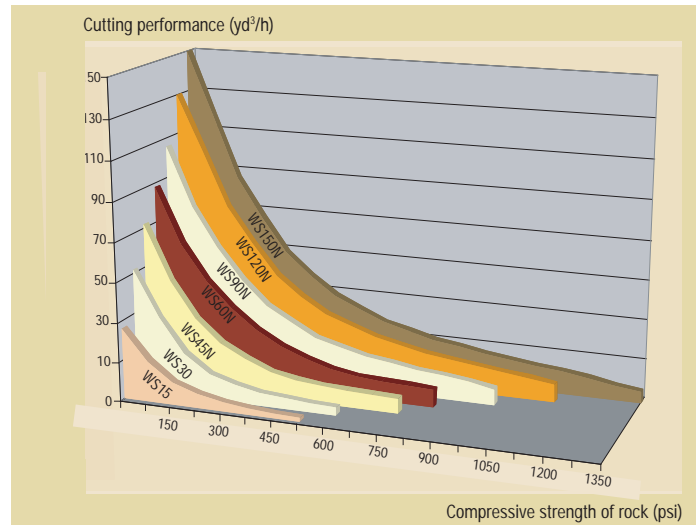
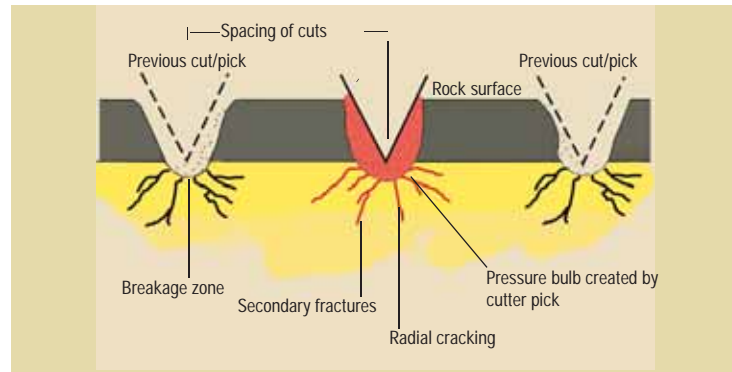
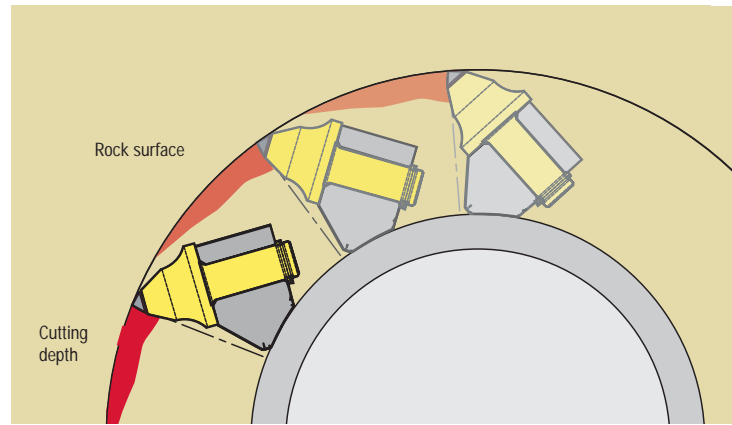
Did you know? It's not the power (kW) of a cutting unit / cutting head but the pick force that counts for effective cutting! Modern cutting units have sturdy spur gears powered by high-torque hydraulic motors. Only transverse cutting units by TEREX have transmissions with gear reduction that boost cutting power. This feature is protected by European Patent No. EP084146 B1 and US Patent No. 6,158,818.

CUTTING TECHNOLOGY

TEREX transverse cutting units meet state-of-the-art engineering standards and are constantly updated in close co-operation with technical universities. An optimum configuration and pick selection guarantee a high cutting performance and low pick wear. Designed for smooth running, low vibration, and equipment-friendly operation, our transverse cutting units are geared to optimum material crushing.

PRODUCTIVITY

The wide selection of drum and pick types means that TEREX cutting units can cut a wide range of rock types and strengths. Cutting performance depends mainly on rock hardness (compressive strength), toughness (tensile strength), and the content of abrasion-resistant minerals. As rock usually contains natural breakage lines or inclusions, even very hard rocks can be excavated successfully and economically. The cutting performance data shown in the chart are based on our experience.



MAIN FIELDS OF APPLICATION



Trench and pipeline construction



Building renovation and demolition



Road construction



Sensitive areas



Scaling/grinding/profiling

FIELDS OF APPLICATION

CANAL AND PIPELINE CONSTRUCTION

1

BUILDING RENOVATION AND DEMOLITION

2

TUNNELLING AND MINING

3

ROAD CONSTRUCTION

4

SENSITIVE AREAS

5

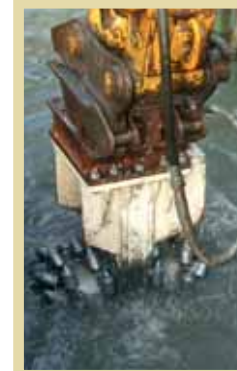
QUARRYING

6

LANDSCAPE GARDENING

7

BIOREMEDIATION/SOIL MIXTURE





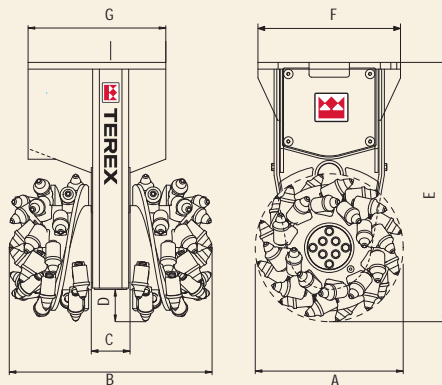
TECHNICAL DATA

TEREX HYDRAULIC TRANSVERSE CUTTING UNITS AT A GLANCE

CUTTING UNIT TYPES		WS15N-LD Option	WS15N-HD Standard	WS15N-XHD Option	WS30N-MD Option	WS30N-HD Standard	WS30N-XHD Option	WS45N-MD Option
Input power	HP	24	24	30	40	40	40	60
Power peak, max.	HP	29	29	36	50	50	50	75
Max. hydr. operating pressure	psi	5,400	5,400	5,400	5,400	5,400	4,300	5,400
Hydr. oil flow rate required	gpm	8 - 17	11 - 17	13 - 17	18 - 29	21 - 31	27- 40	27- 44
Hydr. oil flow rate recommended	gpm	11	13	15	21	36	31	35
Hydraulic motor	cu. in.	13.0	15.6	24.3	28.5	34.2	45.8	59.8
Cutting head speed	rpm	71 @ 8 gpm	77 @ 11 gpm	63 @ 13 gpm	85 @ 19 gpm	81 @ 21 gpm	81 @ 21 gpm	64 @ 26 gpm
		150 @ 17 gpm	130 @ 17 gpm	82 @ 17 gpm	134 @ 29 gpm	122 @ 32 gpm	122 @ 32 gpm	108 @ 45 gpm
Cutting head torque ^(350 bar)	lbf.ft.	1,700	2,100	2,900	3,400	4,100	4,600	6,400
Weight (w/out adapter)	lbs	550	550	550	950	950	950	1,900
Excavator weight	lbs	4,400 - 9,000	9,000 - 13,000	11,000 - 18,000	18,000 - 26,000	20,000 - 31,000	26,000 - 33,000	26,000 - 33,000

CUTTING DRUM TYPES		WS15N		WS30N		WS45N		WS45N-MD
		Excavation Demolition	Scaling	Excavation Demolition	Scaling	Excavation Demolition	Scaling	Excavation Demolition
Cutting diameter	A in	12.6	11.6	15.4	15.4	21.7	18.3	24
Cutting drum width, total	B in	19.7	21.1	24.8	26.8	29.5	25.8	35.1
Width at gear shaft	C in	3.4	3.4	5.1	5.1	5.7	5.7	6.9
Cutting depth	D in	2.5	2.1	3.5	3.5	4.7	3.1	4.9
Total length	E in	23.2	22.7	28.4	28.4	38	36.4	42.7
Connecting plate/ adapter	F in	12.6	12.6	15.9	15.9	20.9	20.9	23.4
	G in	12.2	21.2	18.9	18.9	20.1	20.1	25.6
No. of picks	pcs	2 x 24	2 x 47	2 x 24	2 x 33	2 x 28	2 x 39	2 x 28
Pick force, max	lbf	4,100 (XHD: 24.3)	4,300 (XHD: 26.6)	6,300	6,300	8,100	9,400	10,200
Pick speed	ft/s	3.6 - 8.5	3.6 - 8.5	5.9 - 9.2	5.9 - 9.2	6.2 x 10.5	5.9 x 9.2	5.9 - 9.8

DIMENSIONS



CUTTING HEAD TYPES



A GUIDE TO PICK SELECTION

WS45N-HD Standard	WS60N-MD Option	WS60N-HD Standard	WS90N-MD Standard	WS120N-LD Option	WS120N-MD Standard	WS150N-HD Standard
60	80	80	120	160	160	190
75	95	95	145	175	175	200
5,400	5,100	5,100	5,100	5,100	5,100	5,100
32 - 50	32 - 53	37 - 55	63 - 90	66 - 106	79 - 132	95 - 158
40	42	48	74	79	1000	122
68.3	101.6	114.9	203.3	244.5	304.8	366.8
67 @ 32 gpm	57 @ 32 gpm	57 @ 37 gpm	55 @ 63 gpm	48 @ 66 gpm	48 @ 79 gpm	47 @ 95 gpm
106 @ 50 gpm	92 @ 53 gpm	86 @ 55 gpm	78 @ 90 gpm	77 @ 106 gpm	77 @ 132 gpm	75 @ 158 gpm
7,300	9,100	10,300	17,800	21,300	26,600	31,100
1,900	3,100	3,100	3,200	5,700	5,700	6,200
26,000 - 44,000	39,000 - 66,000	39,000 - 66,000	55,000 - 78,000	66,000 - 100,000	66,000 - 100,000	88,000 - 132,000

S60N	WS90N		WS120N		WS150N	
Scaling	Excavation Demolition	Scaling	Excavation Demolition	Scaling	Excavation Demolition	Scaling
24	24	24	29.9	29.9	29.6	29.9
35.1	35.1	35.1	47.2	47.2	55.1	47.2
6.9	6.9	6.9	9.4	9.4	9.4	9.4
4.9	4.9	4.9	5.3	5.3	5.3	5.3
42.7	43.1	43.1	52.9	52.9	52.9	52.9
23.4	23.4	23.4	29.1	29.1	29.5	29.5
24.4	25.6	24.4	30.7	30.7	30.7	30.7
2 x 38	2 x 28	2 x 38	2 x 32	2 x 50	2 x 40	2 x 60
10,200	17,600	17,600	21,300	21,300	25,800	25,800
5.9 - 9.8	5.9 - 8.2	5.9 - 8.2	5.9 - 9.8	5.9 - 9.8	5.9 - 9.8	5.9 - 9.8

STANDARD PICKS

for soft to medium-hard rock, e.g. asphalt, salt, slack



HEAVY-DUTY PICKS

for medium-hard to very hard rock, e.g. limestone, concrete



WEAR-PROTECTED PICKS

for very abrasive material, e.g. sandstone, blast-furnace crushed stone



WOOD CUTTER PICKS

for cutting tree stumps



FOR EVERY CARRIER AND EVERY APPLICATION

TEREX transverse cutting units can be equipped with a standard range of different hydraulic motors, cutting heads and picks, ensuring a flexible adjustment to the specific carrier and operating conditions. Non-standard solutions are also available.



EXCAVATION DRUM

- for soft to medium-hard rock
- pick for maximum productivity and cutting performance
- no raised ridge (spiral blade) to limit pick penetration



SCALING DRUM

- for soft to medium-hard rock - whenever a precise or smooth surface is required
- higher number of picks for accurate surfaces and reduced vibration but lower cutting performance







DEMOLITION DRUM

- for medium-hard to hard rock and concrete
- wear-protected spiral blade for limited pick penetration, lower vibration and smoother operation



Hydraulic Transverse Cutting UNITS

KEY SPECIFICATIONS

Type		 WS15N	 WS30N	 WS45N	 WS60N
Hydraulic input power	HP	24/30	40	60	80
Oil flow rate required	gpm	8 - 17	18 - 31	27 - 50	32 - 55
Cutting head width	in	19.7	24.8	29.5	35.1
Weight, approx.	lbs	550	930	1,880	3,090
Recommended excavator weight	lbs	4,400 - 18,000	18,000 - 33,000	36,000 - 44,000	39,000 - 66,000

Type		 WS90N	 WS120N	 WS150N
Hydraulic input power	HP	120	160	190
Oil flow rate required	gpm	63 - 90	66 - 106	95 - 158
Cutting head width	in	35.1	47.2	55.1
Weight, approx.	lbs	3,220	5,630	6,180
Recommended excavator weight	lbs	55,000 - 78,000	66,000 - 100,000	88,000 - 132,000



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