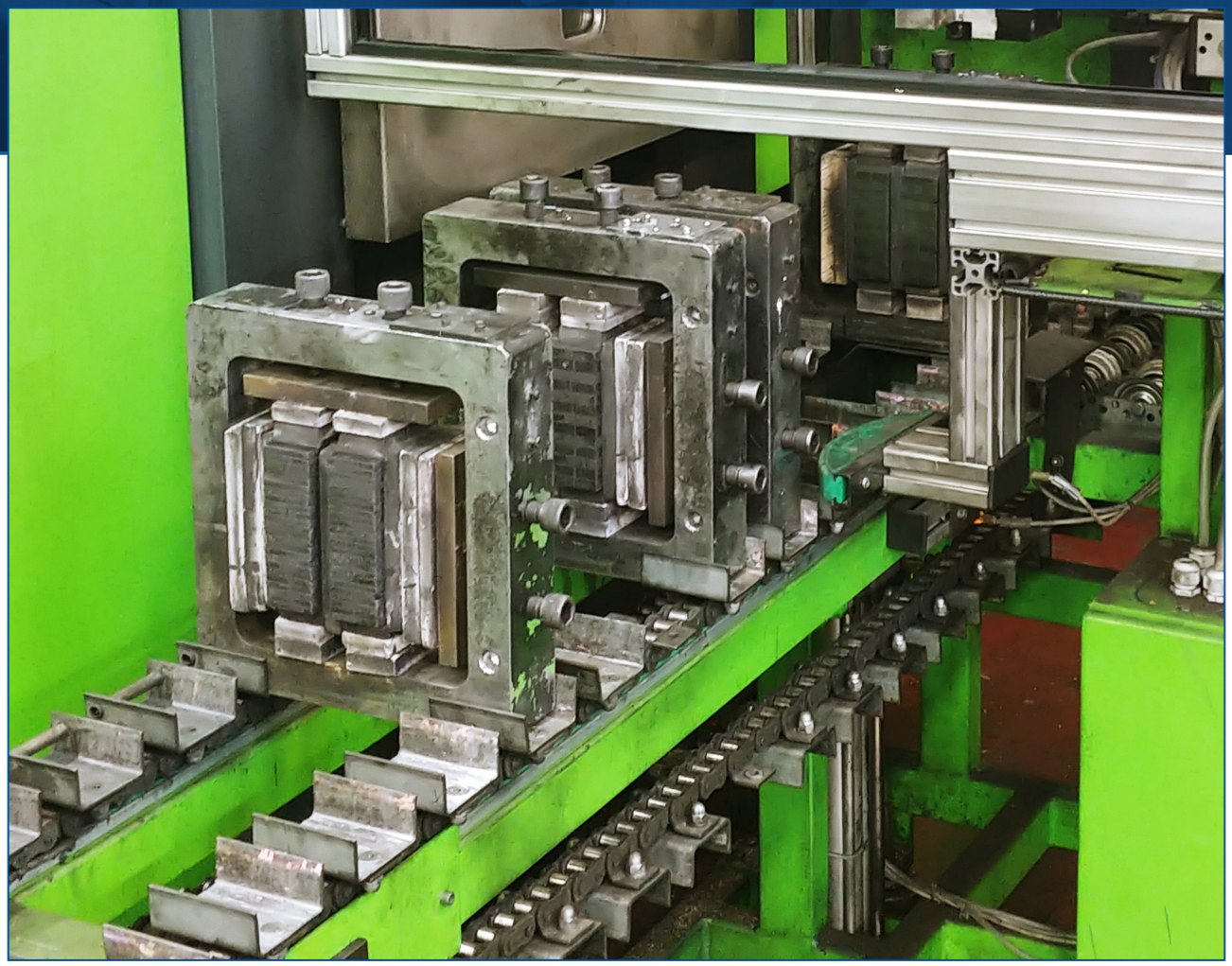
DIAMOND SEGMENTS FOR CONSTRUCTION



TOOLGAL
Innovative Diamond Tools

DRILL SEGMENTS

TOOLGAL offers:

- A wide range of bond types that suit professional drilling jobs worldwide.
- Provides professional support, enabling optimal results in minimum time.
- Extends training and assistance with brazing techniques.
- Welcomes special dimension orders, pending order quantity and engineering approval.

SHAPE		DIAMETER (mm)	LENGTH (mm)	THICKNESS (mm)	HEIGHT (mm)
FLAT	F	35	16	2.5-4.0	7.5
FLAT	F	38	24	2.5-4.0	7.5-10-12
FLAT	F	45	24	2.5-4.0	7.5-10-12
FLAT	F	55	24	2.5-4.0	7.5-10-12
FLAT	F	65	24	2.5-4.0	7.5-10-12
FLAT	F	75	24	2.5-4.0	7.5-10-12
FLAT	F	100	24	3.0-5.0	7.5-10-12
FLAT	F	125	24	3.0-5.0	7.5-10-12
FLAT	F	150	24	3.0-5.0	7.5-10-12
FLAT	F	200	24	3.5-6.0	7.5-10-12
FLAT	F	250	24	3.5-6.0	7.5-10-12
FLAT	F	300	24	3.5-6.0	7.5-10-12
FLAT	F	straight	24	3.5-6.0	7.5-10-12



SHAPE		DIAMETER (mm)	LENGTH (mm)	THICKNESS (mm)	HEIGHT (mm)
V-shape	V	38	24	3.5-4.0	7.5-10
V-shape	V	45	24	3.5-4.0	7.5-10
V-shape	V	55	24	3.5-4.0	7.5-10
V-shape	V	65	24	3.5-4.0	7.5-10
V-shape	V	75	24	3.5-4.0	7.5-10
V-shape	V	100	24	3.5-5.0	7.5-10
V-shape	V	125	24	3.5-5.0	7.5-10
V-shape	V	150	24	3.5-5.0	7.5-10
V-shape	V	200	24	4.0-5.0	7.5-10
V-shape	V	250	24	4.0-5.0	7.5-10
V-shape	V	300	24	4.0-5.0	7.5-10



SHAPE		DIAMETER (mm)	LENGTH (mm)	THICKNESS (mm)	HEIGHT (mm)
TURBO & FLAT	T	38	24	3.5-4.0	10
TURBO & FLAT	T	45	24	3.5-4.0	10
TURBO & FLAT	T	55	24	3.5-4.0	10
TURBO & FLAT	T	65	24	3.5-4.0	10
TURBO & FLAT	T	75	24	3.5-4.0	10
TURBO & FLAT	T	100	24	3.5-4.5	10
TURBO & FLAT	T	125	24	3.5-4.5	10
TURBO & FLAT	T	150	24	3.5-4.5	10
TURBO & FLAT	T	200	24	4.0-6.0	10
TURBO & FLAT	T	250	24	4.0-6.0	10
TURBO & FLAT	T	300	24	4.0-6.0	10



SHAPE		DIAMETER (mm)	LENGTH (mm)	THICKNESS (mm)	HEIGHT (mm)
TURBO & V-SHAPE	TV	55	24	3.5-4.0	12.5
TURBO & V-SHAPE	TV	65	24	3.5-4.0	12.5
TURBO & V-SHAPE	TV	75	24	3.5-4.0	12.5
TURBO & V-SHAPE	TV	100	24	3.5-4.5	12.5
TURBO & V-SHAPE	TV	125	24	3.5-4.5	12.5
TURBO & V-SHAPE	TV	150	24	3.5-4.5	12.5
TURBO & V-SHAPE	TV	200	24	3.5-5.0	12.5
TURBO & V-SHAPE	TV	250	24	3.5-5.0	12.5
TURBO & V-SHAPE	TV	300	24	3.5-5.0	12.5



IMPORTANT INFORMATION FOR CHOOSING DRILL SEGMENTS			
TYPE OF AGGREGATES		**REINFORCMENT (Quantity & Rebar diam.)**	**MACHINE POWER (KW)**
Soft	Limestone	NO REINFORCMENT LIGHT MEDIUM HEAVY	Low 1.3-2.4 Mid. 2.4-4 High > 4 IMPORTANT: Central water feed
	Soft Granite		
Medium	Granite		
	Quartz		
Hard	Hard river gravel		
Very hard	Flint		

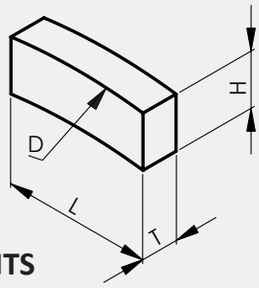
DRILL SEGMENTS LEGEND

SHAPE SYMBOL	SEG. SHAPE
F	FLAT
V	V SHAPE (ROOF)
T	TURBO
TV	TURBO V SHAPE (ROOF)

DRILLING PROPERTIES	MATERIAL	SPEED	LIFE
RAPID	SHORTER LIFE	FAST	SHORTER LIFE
NORMAL	Concrete with mid to high reinforcement aggregates and/ or mid to hard aggregates	FAST TO AVERAGE SPEED	LONGER LIFE
FLINT	Concrete with mid to high reinforcement and/or very hard	FAST TO AVERAGE SPEED	LONGER LIFE

DIAMOND CONCENTRATION SYMBOLS	APPEARANCE	LEGEND
L / E / P	XXXL / XXXE / XXXP Where XXX - different bond codes	L- MID. HIGH E- HIGH P - VERY HIGH

ITEM CODING				
D125	(LxTxH) 24x3.5x10	XXXL	RAPID	TV
DIAMETER	DIMENSIONS	BOND+ CONC.	DRILLING PROPERTIES	SHAPE



FLAT SIGMENTS

DRILL DIAMETER (mm.)	ROTATIONAL SPEED (RPM)	RECOMMENDED DRILLING MACHINE POWER (KW)
42	900–1400	1-2
52	750–1100	1-2
62	620–950	1-2
72	550–800	2-3
82	470–700	2-3
102	370–550	2-3
122	310–470	3-4

DRILL DIAMETER (mm.)	ROTATIONAL SPEED (RPM)	RECOMMENDED DRILLING MACHINE POWER (KW)
162	240–350	3-4
182	210–320	3-4
202	190–280	3-4
250	150–230	>'4
300	130–190	>'4
400	100–140	>'4
500	80–120	>'4

Drawings for illustration purposes only

DRILL RINGS

TOOLGAL offers:

- A wide range of bond types that suit professional drilling jobs worldwide
- Standard applications for natural and engineered stone
  (granite, marble, quartz engineered stone and extreme hard surfaces like Dekton)
- Standard and special application in reinforced concrete
- Almost all diameters between 8 to 52mm and many from 53 to 102mm
- Our professional support enables optimal results in minimum time
- Most rings are also suitable for laser welding
- TOOLGAL extends training and assistance with brazing techniques

D Diameter (mm)	T Thickness (mm)	H Height (mm)	N Notches No.
8 - 25 each mm	1.5 - 3.5	8.0-10.0	2
26 - 45 each mm	2.0-4.0	8.0-10.0	2-6
46 - 102	Per order, depends on molds availability	8.0-10.0	4-12

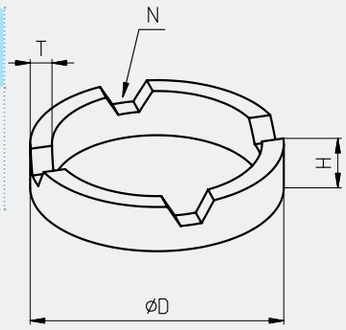


DRILL RINGS LAGENT



DRILLING PROPERTIES	MATERIAL	SPEED	LIFE
RAPID	Concrete with low reinforcement and/or soft aggregates	FASTEST	SHORTER LIFE
NORMAL	Concrete with mid to high reinforcement and/or mid to hard aggregates	FAST TO AVERAGE SPEED	LONGER LIFE
FLINT	Concrete with mid to high reinforcement and/or very hard aggregates	FAST TO AVERAGE SPEED	LONGER LIFE

DIAMOND CONCENTRATION SYMBOLS	APPEARANCE	LEGEND
L / E / P	XXXL / XXXE / XXXP Where XXX - different bond codes	L- MID. HIGH E- HIGH P - VERY HIGH



ITEM CODING				
D35	(TxH) 2.5x10	XXXL	RAPID	(N)2
DIAMETER	**DIMENSIONS**	**BOND+ CONC.**	**DRILLING**	**No. of NOTCHES**

WALL SAW SEGMENTS

SHAPE	DIAMETER (mm)	LENGTH (mm)	THICKNESS (mm)	HEIGHT (mm)
FLAT	500 - 1800	24	4.8	12
FLAT	500 - 1800	40	3.7-4.0-4.3-4.6-5.0-5.5-6.0	10 - 12
SPLIT SHAPE	500 -1800	40	3.7-4.0-4.3-4.6-5.0-5.5	10



WALL SAW LAGENT

SHAPE SYMBOL	SEG. SHAPE
F	FLAT SEGMENT
S	SPLIT SEGMENT

CUTTING PROPERTIES	MACHINE CAPACITY	SHAPE	MATERIAL	SPEED	LIFE
RAPID	LOW to MID 6-10KW HF	S	Concrete with low to mid reinforcement and/or soft to mid-hard aggregates	FASTEST	SHORTER LIFE
NORMAL	MID to HIGH 11-32KW HF	S/F	Concrete with low to high reinforcement and/or soft to hard aggregates	FAST TO AVERAGE SPEED	LONGER LIFE
FLINT	MID to HIGH 11-32KW HF	S/F	Concrete with low to high reinforcement and/or hard to very hard aggregates	FAST TO AVERAGE SPEED	LONGER LIFE

DIAMOND CONCENTRATION SYMBOLS	APPEARANCE	LEGEND
2 / 3	2XXX / 3XXX / Where XXX - different bond codes	2- MID CONC. 3- MID / HIGH CONC.

ITEM CODING				
D125	(LxTxH) 40x4.6x10	2/3 XXX	FLINT	S
DIAMETER	DIMENSIONS	BOND+ CONC.	CUTTING PROPOPERTIES	SHAPE

PRE-STRESSED CONCRETE SEGMENTS

TOOLGAL provides the PSC industry with an efficient and economical solution for cutting pre-stressed concrete and hollow bar elements.
Total specifications support in order to optimize the cutting of pre-stressed concrete hollow core slabs, solid sections, T or I beams and railway beds.

BONDING SYSTEM:
TOOLGAL various types of bonding systems according to the customer's working conditions and concrete aggregates.

INNOVATION:
TOOLGAL GE LINE – This new innovative bonding system permits higher output (speed and performance) and is especially designed as an environmentally friendly product (no heavy metals).

SEGMENT SHAPES AND STRUCTURE:
In order to maximize the tool efficiency, combines the bonding system with the right shape and inner structure of the segment.

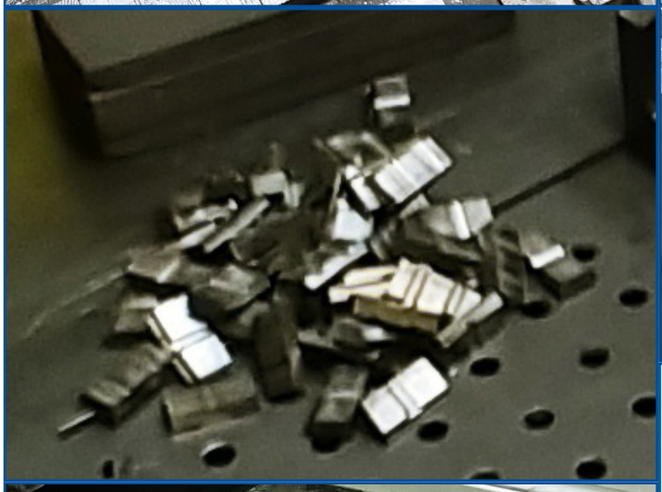
SEGMENT TYPE				
FAMILY	**SUB FAMILY**	**AGGREGATES**	**SPEED**	**LIFE**
T	5TSA	SOFT / ABRASIVE	++	+++
	7TSA	SOFT / ABRASIVE	++	+++++
	5TSM	SOFT TO MID	+++	+++
	7TSM	SOFT TO MID	++	++++
SK	5SKSH	SOFT TO HARD	++++	+++
	7SKSH	SOFT TO HARD	+++	++++
	5SKSM	SOFT TO MID	+++	+++
	7SKSM	SOFT TO MID	++	+++++
GE	7GESH	SOFT TO HARD	++++	+++
	7GESM	SOFT TO MID	+++	++++



BLADE DIAM. (mm.)	LENGTH (mm)	THICKNESS (mm)	HEIGHT (mm)
800-850	40	6.5 / 7.0	10 /12 / 15
900-1050	40	7.0 / 7.5 / 8.0	10 /12 / 15
1100	40	8.0	10 /12 / 15
1100 - 1200	24	8.0 / 9.0	15 / 20
1200-1300	40	9.0 /10.0	10 /12 / 15
1350	40	9.0 /10.0	10 /12 / 15

ITEM CODING		
D1110	(LxTxH) 40x8.0x15	7GESM
DIAMETER	**DIMENSIONS**	**SUB FAMILY**











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