

Preboring References

Usage Category	1	2	3	4	5	6	7	8
Material Categories	Soft woods Plywoods Chipboards	Hardwoods MDF Boards	Soft woods Plywoods Chipboard	Hardwoods MDF Boards	a) Soft plastics Hardwoods b) Light metal alloys 1) under 180 N/mm ² 2) 180–250 N/mm ²	a) medium hard plastics b) light metal alloys from 250–300N/mm ²	a) hard plastics b) light metal alloys from 300–350N/mm ²	light metal alloys over 350 N/mm ² brass, bronze and non-ferrous metals, wrought-iron
RAMPA Inserts type	A, B*, C, BL	A, B*, C, BL	CA, D, SK, SKD, SKL	CA, D, SK, SKD, SKL	a) E and ES b1) and b2) ES	a) E and ES b) ES	a) E and ES b) ES	ES
RAMPA Inserts Material	brass, steel	brass, steel	brass, steel	brass, steel	a) + b1) steel, brass b2) hardened steel	a) steel, brass b) hardened steel	a) steel, brass b) hardened steel	hardened steel
RAMPA Inserts outer Ø	drill hole Ø from to	drill hole Ø from to	drill hole Ø from to	drill hole Ø from to	drill hole Ø from to	drill hole Ø from to	drill hole Ø from to	drill hole Ø from to
5	–	–	–	–	4,56	4,62	4,68	4,74
6	4,6	4,9	–	–	5,31	5,41	5,51	5,61
6,5	5,3	5,6	–	–	5,81	5,91	6,01	6,11
8	5,7	6,1	6,6	6,9	7,12	7,24	7,36	7,48
9	6,7	7,1	–	–	8,12	8,24	8,36	8,48
9,3	7,2	7,6	–	–	–	–	–	–
10	7,6	8,0	8,4	8,9	8,60	8,80	9,00	9,40
12	9,4	9,9	10,0	10,4	10,60	10,80	11,00	11,40
13	10,4	10,9	11,0	11,4	–	–	–	–
14	11,4	11,9	12,0	12,4	12,60	12,80	13,00	13,40
16	12,6	13,3	14,0	14,5	14,60	14,80	15,00	15,40
18	–	–	–	–	16,60	16,80	17,00	17,40
18,5	15,1	15,8	16,2	16,7	–	–	–	–
20	–	–	–	–	18,60	18,80	19,00	19,40
22	18,3	19,0	19,5	20,0	–	–	–	–
25	21,3	22,0	22,5	23,0	–	–	–	–
30	26,3	27,0	–	–	–	–	–	–

These figures are guidelines only. We recommend to determine the exact measurements through a process of trial and error.

Diameter: Depending on the outer diameter of the RAMPA insert and the density of the material.
The harder the material, the larger the drill-hole diameter.

Depth: Insert length plus 1,0 mm to 3,0 mm

*The stated diameters are not valid for some dimensions of type B in stainless steel.