

Tool recommendations for HARDOX® wear plate

General information and recommendations about tools for drilling, counterboring, countersinking, tapping and milling of HARDOX HiTuf, 400, 450, 500 and 600

For more information about how to machine HARDOX wear plate see our brochure "Machining" on www.hardox.com or consult our Technical Customer Service.

HARDOX material characteristics

Name	Typical Hardness (HBW)	Typical tensile strength, R_m (N/mm ²)
HARDOX HiTuf	350	940
HARDOX 400	400	1250
HARDOX 450	450	1400
HARDOX 500	500	1550
HARDOX 600	600	1800

Drilling in HARDOX



Cemented carbide drill for HARDOX HiTuf, 400, 450, 500 and 600

Tool name	Article nr	Diameter range
Coromant U Indexable drill	R416.2-xxxxxx-21	Ø 12,7–58,00 mm

Maximum drill length 2 x Ø
Insert grades: Centre insert 1020 and periphery insert 3040

Company head office: Sandvik Coromant AB (Sweden)

Website: <http://www.sandvik.com>



Indexable head drill for HARDOX HiTuf, 400, 450, 500 and 600

Tool name	Article nr	Diameter range
Chamdrill	DMC xxx-xxx-xxA	Ø 8,00–20,5 mm

Maximum drill length 3 x Ø
Drillhead grade: IC908

Company head office: ISCAR LTD (Israel)

Website: <http://www.iscar.com>



High speed steel drill alloyed with 8% cobalt (HSS-Co8%) for HARDOX HiTuf, 400, 450, 500

Tool name	Article nr	Diameter range
HSS ECo 8 Taper Shank Drills, WN 103	832xxxxx	Ø 8,00–40,00 mm

Company head office: Alpen-MayKestag (Austria)
Website: <http://www.alpenmaykestag.com>
Phone: +43-662-44901-0



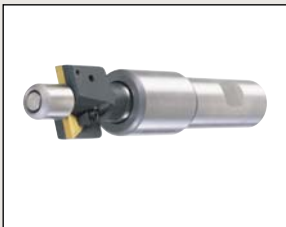
Brazed carbide drill for HARDOX HiTuf, 400, 450, 500 and 600

Tool name	Article nr	Diameter range
Coromant Delta drill	R411.5-xxxxx-Dxx-xx P20	Ø 9,50–30,40 mm

Maximum drill length 3,5 x Ø

Company head office: Sandvik Coromant AB (Sweden)
Website: <http://www.sandvik.com>

Counterboring in HARDOX



HARDOX HiTuf, 400, 450, 500 and 600

Tool name	Article nr	Diameter range
WHV counterbore	xWHV-xx,x	Ø 18,0–75,00 mm

Use counterbore with indexable inserts.
Remember always use a revolving pilot.

Company head office: H Granlund tools KB (Sweden)
Website: <http://www.granlund.se>

Countersinking in HARDOX



HARDOX HiTuf, 400, 450, 500 and 600

Tool name	Article nr	Diameter range
KV countersink	xKV9-xx,x	Ø 20,5–60,00 mm

Use countersink with indexable inserts. Remember always use a revolving pilot.

Company head office: H Granlund tools KB (Sweden)
Website: <http://www.granlund.se>

Tapping in HARDOX



HARDOX HiTuf, 400, 450 and 500

Tool name	Article nr	Diameter range
105/4 Universal 1	110xx	M2–M24

Use high speed steel, alloyed with cobalt, coated with TiN.

In applications in which thread strength is not critical, a somewhat larger than standard hole diameter can be drilled (about 3% larger).

For blind holes use thread milling.

Company head office: Manigley (Switzerland)

Website: www.manigley.ch

Phone: +41–32 397 00 50

Fax: +41–32 397 17 25

Thread milling in HARDOX



HARDOX 600

Tool name	Article nr	Diameter range
VHM TiCN G271	GF 333106.xxxx	M4–M16

Use solid carbide thread milling cutter with countersinking, coated with TiCN. Use this tool only together with a numerically controlled milling machine.

Company head office: Emuge Franken (Germany)

Website: <http://www.emuge.de/english/Home.htm>

Face milling in HARDOX HiTuf, 400, 450, 500 and 600



When roughing, use a cutter with round inserts for maximum stability. When finishing, select a cutter with 45° setting angle. In both cases, make sure to obtain a light cutting edge geometry. The carbide grade should be in the range P20 to P30. The following manufacturers of metal cutting tools operate around the world.

Kennametal Inc (Head office in USA)

<http://www.kennametal.com>

Iscar (Head office in Israel)

<http://www.iscar.com>

Sandvik Coromant AB (Head office in Sweden)

<http://www.coromant.sandvik.com>

Seco Tool AB (Head office in Sweden)

<http://www.secotools.com>

HARDOX[®]

WEAR PLATE

HARDOX wear plate only from SSAB Oxelösund
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