

Small part machining

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External machining	
Component diameter	
General Turning - CoroTurn® 107	6-32 mm B1
Parting & grooving - CoroCut® 1- and 2-edge	6-32 mm B17
General turning, parting & grooving, threading - QST™ holding system	6-32 mm B22
Parting & grooving - CoroCut® 3-edge	1-12 mm B34
Parting & grooving - T-Max Q-Cut®	6-32 mm B38
Threading - T-Max U-Lock®	12-32 mm B41
General turning, parting & grooving and threading - CoroCut® XS	1-8 mm B44
Internal machining	
Min. bore diameter	
General Turning - CoroTurn® 107	8.5 mm C2
Turning, grooving and threading - CoroCut® MB	10 mm C8
General turning, grooving and threading - CoroTurn® XS	0.3 mm C15
EasyFix sleeves for cylindrical bars	C29
Milling	
Cutter diameter	
End milling - CoroMill® Plura solid carbide end mills	0.4-12 mm D2
Drilling	
Drill diameter	
Solid drilling - CoroDrill® Delta-C R840 solid carbide drills	0.3-12 mm E1
Solid drilling, chamfering - CoroDrill® Delta-C R841 solid carbide drills	3.35-12mm E11
Cutting data	
General turning - external and internal	
CoroTurn® 107	F1
CoroTurn® XS	F12
Turning, parting & grooving and threading	
CoroCut® 1-, 2- and 3-edge	F8
CoroCut® XS	F13
CoroCut® MB	F14
Milling	
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Workpiece material



Steel



Aluminium alloys



Stainless steel



Heat resistant alloys



Cutting data

Starting values for cutting speeds and feeds are given on the insert dispensers.



For more information, see our user's guide "Small part machining" and Metalcutting Technical guide

Symbols for page references:



External machining



Inserts



Cutting data



Internal machining



Grade descriptions

Terminology and units

D_m = Machined diameter

mm

v_c = Cutting speed

m/min

n = Spindle speed

r/min

$k_{c0.4}$ = Specific cutting force for chip thickness 0.4 mm

N/mm²

f_n = Feed per revolution

mm/r

κ_r = Entering angle

degree

r_ϵ = Insert nose radius

mm

a_p = Cutting depth

mm

h_{ex} = Max chip thickness

mm

nap = number of passes

Formulas

Cutting speed (m/min)

$$v_c = \frac{\pi \times D_m \times n}{10^3}$$

Spindle speed (r/min)

$$n = \frac{v_c \times 10^3}{\pi \times D_m}$$