

# CoroBore<sup>®</sup> 825

## Fine boring tools with Silent Tools<sup>™</sup> technology

CoroBore<sup>®</sup> 825 is a flexible and reliable tool for fine boring offering a stable performance with reduced vibration.

Thanks to the new generation Silent Tools<sup>™</sup> adaptors, higher performance and increased productivity can be achieved.

### Features and benefits

- Silent Tools<sup>™</sup> damper dimensioned for every adaptor to gain maximum performance
- Short fine boring head in aluminium to reduce weight and distance between damper and cutting edge
- Internal coolant through the tool to cutting edge
- Stable boring process giving excellent surface finish, process security and high penetration rates
- Possibility to use the new assortment of cartridges for back boring applications

### Application

- For fine boring applications, diameter 19–167 mm (0.748–6.575 inch)
- For higher performance and increased productivity where vibration issues are frequently encountered, especially when machining with long overhangs
- Cutting data can be increased substantially due to reduced vibration



ISO application areas

## Performance – Fine boring with C5-R825C-FAE-277 (825D-70TC11-C5M)

<b>Machine:</b>	MORI SEIKI NT4200 DCG
	Spindle interface: Coromant Capto® C6
<b>Tool assembly:</b>	825D-70TC11-C5M, diameter range 55–70 mm (2.165–2.756 inch)
<b>Basic holder:</b>	C6-391.02-50 080
<b>LF/LU:</b>	380 mm (14.96 inch)/350 mm (13.78 inch)
<b>Cartridge:</b>	R825C-AF23STUC1103A, KAPR 92°
<b>Insert:</b>	TCGX 110304L-WK 1515
<b>Workpiece material:</b>	EN 34CrNiMo6 (AISI 4340); MC: P2.1.Z.AN, HB: 290

Excellent  
surface finish



Insert:	TCGX 110304L-WK 1515					
Boring tool preset diameter, DC mm (inch)	64.4 (2.535)					
Measured bore diameter, DC mm (inch)	64.3 (2.531)					
Predrilled bore diameter, Dp mm (inch)	63.6 (2.504)					
Chip thickness, $h_{ex}$ mm (inch)	0.15 (0.006)					
<b>Cutting speed, <math>v_c</math> m/min (ft/min)</b>	<b>100 (328)</b>	<b>200 (656)</b>	<b>300 (984)</b>	<b>400 (1312)</b>	<b>500 (1640)</b>	<b>600 (1968)</b>
Feed per rev, $f_r$ mm (inch)	0.15 (0.006)					
Spindle speed, $n$ rpm	494	989	1 483	1 977	2 471	2 966
Penetration rate, $v_f$ mm/min (in/min)	74 (2.913)	148 (5.827)	223 (8.780)	297 (11.693)	371 (14.606)	445 (17.520)
Intended radial depth of cut, $a_p$ mm (inch)	0.400 (0.016)					
Actual radial depth of cut, $a_p$ mm (inch)	0.350 (0.014)					
Surface roughness, $R_z$ $\mu\text{m}$ ( $\mu\text{in}$ )	4.43 (174)	4.75 (187)	4.55 (179)	4.41 (174)	4.44 (175)	3.99 (157)
Surface roughness, $R_q$ $\mu\text{m}$ ( $\mu\text{in}$ )	1.01 (40)	1.11 (44)	1.12 (44)	1.02 (40)	0.97 (38)	1.01 (40)
<b>Surface roughness, <math>R_a</math> <math>\mu\text{m}</math> (<math>\mu\text{in}</math>)</b>	<b>0.85 (33)</b>	<b>0.94 (37)</b>	<b>0.94 (37)</b>	<b>0.86 (34)</b>	<b>0.80 (32)</b>	<b>0.89 (35)</b>

For more information, contact your local Sandvik Coromant representative or visit [www.sandvik.coromant.com/corobore825](http://www.sandvik.coromant.com/corobore825)

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