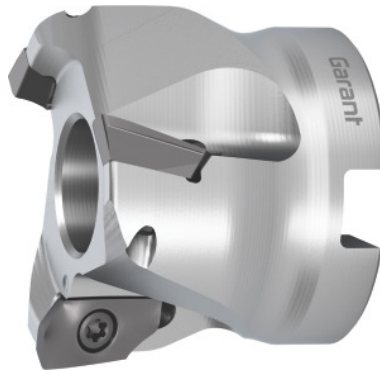


## Garant

**Aluminium shoulder mill, with bore, Ø D / number of effective cutting edges  
Z: 80/5**



### Order data

Order number	211759 80/5
GTIN	4062406681845
Item class	210

### Description

#### Version:

High-performance milling system for high cutting speeds. Absolutely precise insert bedding. Exceptional torsional stiffness thanks to optimised protection against centrifugal force.

#### Attention:

Before using the indexable insert No. 211777 ALU ( $r = 6.0$  mm), the insert seats of the carrier must be modified.

#### Note:

The **recommended torque** for fastening the insert screws No. 219878 4 and 219878 5 is **3.2 Nm**.

Tool exchange: PowerCard

Overall length  $L_{tot}$ : 50 mm

Mounting bore  $\varnothing$ : 27 mm

Circular interpolation milling  $\varnothing D_{min}$ : 150 mm

Circular interpolation milling  $\varnothing D_{max}$ : 158 mm

Circular interpolation milling  $a_p$ : 7.6 mm

Ramping angle  $\alpha_{max}$ : 1.27 °

### Technical description

Number of cutting edges Z	5
Pack of insert screws	219878 5 (15IP)
Circular interpolation milling $\varnothing D_{\min}$	150 mm
Cutting edge $\varnothing D_c$	80 mm
suitable indexable insert	ZDHT 1505
Circular interpolation milling $\varnothing D_{\max}$	158 mm
Circular interpolation milling $a_p$	7.6 mm
Overall length $L_{\text{tot}}$	50 mm
Ramping angle $\alpha_{\max}$	1.27 °
Ramping length L for $\alpha_{\max}$	67.56 mm
Mounting bore $\varnothing$	27 mm
$\varnothing D_3$	70 mm
Shank type	with bore
Setting angle $\kappa$	90 °
Milling application	Circular milling
Milling application	Ramping
Milling application	Plunging
Through-coolant	yes
Tool exchange	PowerCard
Type of product	End / face mill