



## ERRATA

### ANSI/AGMA 1107-A19

### January 2025

The following editorial corrections will be added to the next edition of ANSI/AGMA 1107-A19, *Tolerance Specification for Form Milling Cutters* (published December 2019).

The changes, discovered after publication, have been reviewed and approved by the Chairperson of the AGMA Cutting Tools committee.

**Error 1:** Several errors are present in the existing symbols table. The table below contains the corrections, which are highlighted. Please use the below symbols table in place of the existing symbols table in ANSI/AGMA 1107-A19.

**Table 1 – Symbols**

Symbols	Definitions	Units	Where first used
$C_t$	Chip thickness	mm	Eq A.2
$d_{ac}$	Cutter outside diameter	mm	Eq 4
$F_c$	Active cutter length	mm	Eq 10
$F_{cL}$	Hub face measured length	mm	Eq 3
$F_{LTc}$	Tooth flute lead tolerance, total	μm	Eq 10
$Fm$	Feed rate	μm/minute	Eq A.3
$F_{piTc}$	Tooth face index tolerance, adjacent	μm	Eq 8
$F_{pTc}$	Tooth face index tolerance, total	μm	Eq 9
$F_{pxc}$	Axial pitch, total in overall cutter length	mm	Eq 22
$F_{pxhTc}$	Hub face perpendicularity tolerance, total	μm	Eq 3
$F_{pxTc}$	Axial pitch, cumulative, tolerance	μm	Eq 22
$F_{rhTc}$	Hub diameter runout tolerance, total	μm	Eq 1
$F_{rTC}$	Radial runout tolerance, total	μm	Eq 4
$F_{rxhTc}$	Hub face runout tolerance, total	μm	Eq 2
$F_{aTc}$	Tooth profile tolerance, total	μm	Eq 13
$F_{acTc}$	Tooth profile tolerance, composite	μm	Eq 14
$fm$	Cutter feed rate	mm/minute	Eq A.2
$fmM$	Calculated feed rate multiplier	--	Eq A.2
$ft$	Feed per tooth	mm	Eq A.3
$hc$	Cutting depth	mm	Eq A.2
$mn$	Normal module of cutter	mm	Eq 1
$p_{xc}$	Cutter axial pitch	mm	Eq 18
$p_{xkc}$	Axial pitch	mm	Eq 19
$p_{xkTc}$	Axial pitch, sector, tolerance	μm	Eq 19
$p_{xTc}$	Axial pitch, adjacent, tolerance	μm	Eq 16
$Rpm$	Revolution per minute of the cutter	RPM	Eq A.2
$R_{oTc}$	Tooth face straightness tolerance, total	μm	Eq 7
$T_{snTc}$	Tooth thickness tolerance	μm	Eq 15
$z_0$	number of effective inserts or flutes at $d_{ac}$	--	Eq A.2
$z_0$	number of teeth or effective inserts in the cutter	--	Eq A.3

**Error 2:** On page 18 of ANSI/AGMA 1107-A19 in subclause 6.1.2, Test 3, there are several errors, highlighted here:

**Test 3:** Radial runout tolerance, total,  $F_{rTc}$  is calculated according to Equations 4–6, in micrometers. The minimum value  $F_{rTc}$  is 8 micrometers.

where

$F_{rTc}$  is radial runout tolerance, total;

$d_{ac}$  is cutter outside diameter in millimeters.

For  $45 \leq d_{ac} < 270$

$$F_{rTc} = (12 + 0.4d_{ac})\sqrt{2^{G-5}} \quad (4)$$

Minimum  $d_{ac}$  value is 45  $\mu\text{m}$

For  $270 \leq d_{ac} < 400$

$$F_{rTc} = (20 + 0.4d_{ac})\left(0.85\sqrt{2^{G-5}}\right) \quad (5)$$

For  $400 \leq d_{ac} \leq 500$

$$F_{rTc} = (44 + 0.4d_{ac})\left(0.70\sqrt{2^{G-5}}\right) \quad (6)$$

Maximum  $d_{ac}$  value is 500  $\mu\text{m}$

Grade AA:  $G = 1$

Grade A:  $G = 2$

Grade B:  $G = 3$

**Corrections:** See the corrections, highlighted below. Please use the below corrections in place of the existing Equations 4–6 of ANSI/AGMA 1107-A19.

For  $45 \leq d_{ac} < 270$

$$F_{rTc} = (12 + 0.4d_{ac})\sqrt{2^{G-5}} \quad (4)$$

Minimum  $d_{ac}$  value is 45  $\text{mm}$

For  $270 \leq d_{ac} < 400$

$$F_{rTc} = (20 + 0.4d_{ac})\left(0.85\sqrt{2^{G-5}}\right) \quad (5)$$

For  $400 \leq d_{ac} \leq 500$

$$F_{rTc} = (44 + 0.4d_{ac})\left(0.70\sqrt{2^{G-5}}\right) \quad (6)$$

Maximum  $d_{ac}$  value is 500  $\text{mm}$