Ever Sharp Tools, Inc. Gear & Spline Standard Process Capability Reference Chart

Gear Tolerance	AGMA	Quality	DIN
Very easy for Broaching	1 & 2	Very Low	15
	3	Very Low	14
	4	Low	13
Broaching Capable .	5	Med-Low	12
	6	Medium	11
Broaching Capable with special or high tolerance tool design and manufacture.	7	Med-High	10
	8	Med-High	10
	8	High	9
Gear Geometry Dependent these tolerances are possibly inside the scope of achievable tolerances for broaching.	9	High	9
	9	Higher	8
	10	Very High	7
Not Possible for Broaching	11	Very High	7
	11	Very High	6
	12	Very High	5
	13	Extremely High	5
	13	Extremely High	4
	14	Extremely High	3
	15	Extremely High	2
	16	Extremely High	2

Shaping, Punching, Stamping | Normal Broaching | Broaching w/ Full Form "Shave" | Hard, Special, or Re-Broaching | Grinding

APPROXIMATE EQUIVALENCE OF GEAR PRECISION CLASSES

International ISO	Germany DIN	Japan JIS	U.S.A. AGMA
4	4	0	13
5	5	1	12
6	6	2	11
7	7	3	10
8	8	4	9
9	9	5	8

Spline Tolerance **ANSI B92.1-1996** Broaching capability is dependent on Module or Diametrical Pitch, Pitch Diameter, and Spline Length for Class 4 achievability.

Class 4	Possible for Broaching	Tolerance X .71
Class 5	Normal for Broaching	0 = Par
Class 6	Easy for Broaching	Tolerance X 1.40
Class 7	Very Easy for Broaching	Tolerance X 2.0