STAINLESS STRUCTURALS
SPECIAL PROFILES IN STEEL

STAINLESS STRUCTURALS & DIAMOND BRITE METALS FINISH GUIDE

#4 FINISH

- A brushed finish, uniform and linear in direction parallel to the length of the profile or plate. The most common finish for a wide-variety of end-uses.
- **Appearance: dull, satin-like unilinear look.**
- Achieved by grit progressions up to and including 220 grit depending on the customer's request.

#4 Variations	
Commercial #4	Achieved by grit progressions through 60 grit
True #4 (aka 180 grit finish)	Achieved by grit progressions through 180 grit
Sanitary #4	Achieved by grit progression through 220 grit

#6 FINISH

- Like a #4 finish, a brushed finish, uniform and linear in direction parallel to the length of the profile or plate except that a #6 finish is finer in appearance where the brushed finish appears more compact.
- **Appearance: a very fine, dull satin-like unilinear look.**
- Achieved by grit progressions through 320 grit.

#8 MIRROR FINISH

- A highly reflective finish with a mirror-like appearance. Almost all of the grit lines from preliminary grinding operations are removed. Used primarily in architectural end-uses.
- **Appearance: Smooth, glass-like surface. High reflectivity.**
- Achieved by grit progression through 800 grit followed by buffing with white and black compounds.
- *Note: All Mirror #8 finishes should be quoted on a "best effort basis" since all polished profiles will be hot rolled. The customer must understand that a #8 mirror on hot rolled items will not appear like a #8 mirror finish on cold rolled items.*

NON-DIRECTIONAL FINISH

- A non-directional finish (aka random orbital finish | angel hair finish | vibration finish) is a non-linear finish where the grain direction appears in random swirl patterns.
- **Appearance: random grain direction similar to a random swirl pattern.**
- Achieved by grit progression through 320 grit, which creates a linear pattern followed by hand polishing with random orbital polishers in 60 grit to interrupt the linear brushed appearance.

RA FINISHES

- RA finishes are achieved in a manner like other finishes except that RA finishes are measurable and certifiable. RA finishes look like #4 and #6 finishes except that extra passes with certain abrasive belts are needed to prep the surface for measurement. Measurement occurs with a profilometer which measures the average deviation of the grit lines from an imaginary centerline where the greater the deviation, the rougher the surface and the higher the RA and where the lower the deviation, the smoother the surface and the lower the RA.
- **Appearance: linear, brushed like appearance. The finer the appearance, the lower the RA.**

GRIT FINISHES

- Occasionally, customers may request a certain grit finish which corresponds to the final abrasive belt used in the polishing process.
- **Appearance: linear and uniform in appearance like a #4 or #6 finish.**

SURFACE FINISH COMPARISON CHART

**RA & RMS Finishes in Micro-Inches*
***To be Used for Reference Only & For Quoting Purposes*

INDUSTRY FINISH	GRIT FINISH	RA FINISH	RMS FINISH
#3 Finish	24-60 grit	70-120 RA	80+ RMS
#4-60 Grit Finish	60 Grit	50-70 RA	60-70 RMS
#4-180 Grit Finish	180 Grit	35 RA	40 RMS
#4-220 Grit Finish	220 Grit	32 RA	35 RMS
#6 Finish	320 Grit	20 RA	20-32 RMS
----------	400 Grit	10 RA	15-20 RMS
----------	600 Grit	3-5 RA	9-11 RMS
#8 Mirror Finish	800 Grit & Buff	0 RA	0 RMS