

# TOOLING APPLICATION GEOMETRICAL TOLERANCES - Part 1

## STANDARD FORECREU BAR DIAMETER TOLERANCES

### DECARBURIZATION

- Ground products are decarb-free. Black finish products tolerance and max decarburisation are indicated below :

Supply condition	Dimensions and tolerances		Max decarb.		Machining oversize on OD	
		mm in		mm in		mm in
Ground OD	Ø2.2 to Ø30 ISO k9*	Ø0.0866 to Ø1.181 ISO k9*	none	none	-	-
Black finish OD	Ø4.4 / Ø17.5 -0.10 / +0.30	Ø0.173 / Ø0.689 -0.004 / +0.012	0.30	0.012	0.7	0.028
	Ø18 / Ø23.5 -0.15/+0.30	Ø0.551 / Ø0.925 -0.006 / +0.02	0.40	0.016	1.0	0.039
	Ø24 / Ø30 -0.20 / +0.60	Ø0.945 / Ø1.181 -0.008 / +0.024	0.40	0.016	1.5	0.059
	Ø31 / Ø60 -0.30 / +0.70	Ø1.26 / Ø2.52 -0.012 / +0.028	0.65	0.0256	2.0	0.079

\* Central hole bars are supplied ground to ISO h9.

### POSSIBLE SURFACE DEFECTS, CRACKS, ROPING EFFECT

Supply condition	OD	ID
Ground condition	none	- no penetrative defects. (each batch is individually tested)
Black finish	≤ OD tolerance	

**OVALIZATION** : This defect is included in the OD tolerance

•Bar length :

- 1.8 to 3.9m
- 5.9 to 12.8 ft