



# PolyCrystalline Diamond Dies

typical die geometries for various draw materials:

wire material	diameter d [mm]	reduction angle $2\alpha$	bearing (%d)
copper	0.4 - 8	18° - 20°	30 - 40
copper tinned	0.4 - 8	16° - 18°	30
aluminium	0.4 - 8	20° - 22°	30
stainless steel	0.2 - 8	12° - 14°	30
stainless steel - "flux cored wire"	0.5 - 2.5	16° - 18°	30 - 50
molybdenum	0.4 - 2	12° - 14°	40 - 60
tungsten	0.4 - 2	10° - 12°	40 - 60
CO <sub>2</sub> welding wire	0.6 - 1.2	10° - 12°	30 - 40
highcarbon steel - steelcord	0.12 - 1.9	7° - 12°	30 - 40

standard tolerance:

d [mm]	tolerance in minus [ $\mu\text{m}$ ]
0.1 - 0.2	1.5
0.2 - 0.4	2
0.4 - 0.6	3
0.6 - 1.0	4
1.0 - 2.5	5
2.5 - 4.0	6
4.0 - 8.0	8
> 8.0	10
ovality 50% of tolerance	

