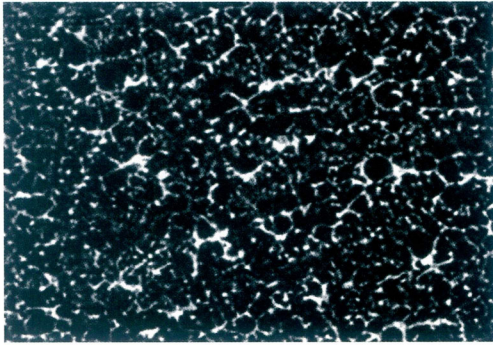


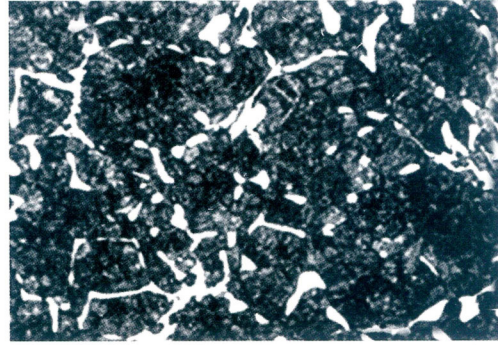
4. HSS Rolls

Chemistry and Surface Hardness

Classification	Chemistry										Barrel Hardness(HSD)
	C	Si	Mn	P	S	Cr	Ni	Mo	V	W	
High speed steel	1.50-2.20	0.30-1.00	0.40-1.20	≤0.030	≤0.025	3.00-8.00	0.00-1.50	2.00-8.00	2.00-9.00	0.00-8.00	75-95



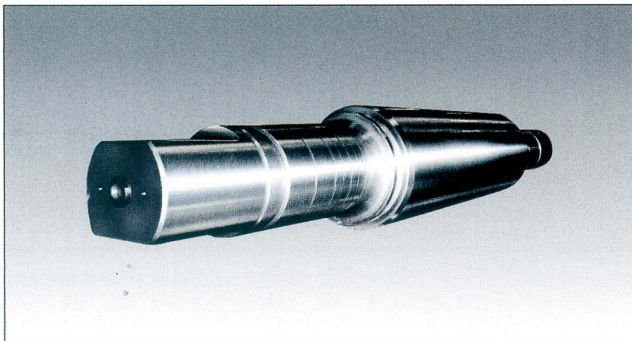
Microstructure



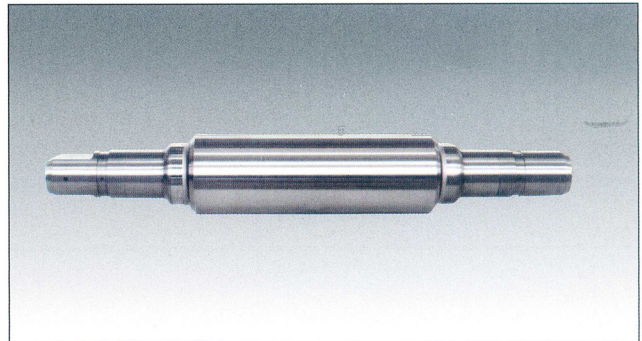
Microstructure

Mechanical Property

Neck Hardness(HSD)	35-45
Tensile Strength(N/mm ²)	≥ 350



HSS Rolls



HSS Rolls