

## FREE CUTTING HIGH SPEED STEEL WITH SULPHUR

These steel grades give improved machinability improving tool life. The production of these steels has to be carefully monitored in order to achieve uniform distribution of sulphide inclusions throughout all sections with good mechanical properties and excellent machinability.



### Steel grade

Steel grade	Corresponding standard		Average chemical composition				
	Werkstoff	ORI Martin	C	Mn	Si	S	P
11SMn30	1.0715	Z09Z21	0,08	1,1	0,05	0,3	0,05
11SMn37	1.0736	Z09Z31	0,08	1,2	0,05	0,38	0,05
SAE 1117		Z09Z11	0,16	1,1	0,2	0,1	0,02
35S20	1.0726	Z35S20	0,35	0,9	0,2	0,2	0,02
36SMn14	1.0764	Z35S12	0,35	1,5	-	0,14	-
44SMn28	1.0762	Z45Z11	0,44	1,5	-	0,29	-
45S10		Z45S10	0,42	0,98	-	0,1	-
46S20	1.0727	Z45S20	0,45	0,9	0,2	0,2	0,02