



# INDO GERMAN INDUSTRIES

## VALVE SEAT INSERTS

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Valve seats are perhaps one of the most important components in **Valve Train Components**.

The **raw material** properties in the valve seat insert play a vital part in the function and longevity of it. The valve seat is also subjected to a sophisticated heat treatment cycle to ensure hardness and correct microstructure. The dimensional machining to OE specifications is also critical. IGI produces the various raw materials required to comply with the OEM's.



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IGI also produces a range of valve seat inserts suitable for alternative applications. These valve seats are made from a very special material that will **bear the high temperatures** and extremely aggressive combustion.

IGI can make the following grades of material to the nearest specifications, some are as described below:

VALVE SEAT INSERTS															
Sr.	Material Name	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Fe	Co	V	T	W
1	PL12MV (OEM)	1.5% to 2.20%	0.8% to 1.0%	0.8% to 1.0%	0.04% Max.	0.07% Max.	12% to 14%	2% to 2.5%	0.5% Max						
2	J3 Stellite:SAE	0.0245	0.015	0.01			0.29		0.03		0.03				0.125
3	J 96	0.024	1.00% Max.				0.29		Balance		8.00% Max				0.15
4	J 100	0.024	1.00% Max.				0.29		Balance		8.00% Max	0.1			0.15
5	J 120	1.20 % to 1.40%	0.30% to 0.60%	0.30% to 0.60%			3.75% to 4.25%	6.00% to 7.00%	1.00% Max	0.25% Max	Balance				5.00 to 6.00%
6	J 120 V	1.20 % to 1.50%	0.30% to 0.60%	0.30% to 0.60%	0.30 Max	S 0.12 Max	3.50% to 4.25%	6.00% to 7.00%	1.00% Max		Balance		1.30-1.60%		5.00 to 6.00%
7	J 125	1.45% Max	2.10% Max	0.004			0.2		0.013		Balance				
8	STELLITE	2.0-2.7	1				29.0-33.0		0.03			41.3			
9	VALMET	1.5-2.0	1.5-2.0				13.5-15.0	0.35-0.5							
10	WELLTITE	2.0-2.4	1.5-1.9				11.0-13.0	5.0-7.0	38.0-42.0						0.4-0.6
11	WELL-TITE MATERIAL	1.70% to 2.10%	1.75 to 2.25%	0.80% to 1.20%		0.03% Max	10.0% to 12.0%		40.0% to 42.0%	0.50% Max	Balance	1.00% Max	0.9 to 1.10%	0.20% Max	
12	MAR-TITE MATERIAL	1.20% to 1.60%	0.50 to 1.00%	0.04% to 0.60%	0.05% Max	0.05% Max	18.0% to 21.0%	0.05% Max	1.80% to 2.50%	0.03% Max	Balance				