



Valve Seat Press Fit Installation Guidelines

The AERA Technical Committee offers the following information regarding valve seat press fit installation guidelines. These guidelines should be referenced when installing valve seats into cylinder heads.

Several valve seat suppliers have provided guidance on the press fit for a valve seat depending on the outside diameter of the seat and the cylinder head material the valve seat is going to be installed in.

Listed below are some industry standard specifications to assist in picking the correct press fit for the application. It is suggested to use these specs whenever the manufacturer has not published a press fit specification for your specific application.

<u>Valve Seat Insert Outside Diameter</u>		<u>Cast Iron Cylinder Head Press Fit</u>		<u>Aluminum Cylinder Head Press Fit</u>	
<u>Inch</u>	<u>mm</u>	<u>Inch</u>	<u>mm</u>	<u>Inch</u>	<u>mm</u>
0.7874-1.1811	20.000-30.000	.0031	.080	.0047	.120
1.1811-1.5748	30.000-40.000	.0043	.110	.0059	.150
1.5748-1.9685	40.000-50.000	.0051	.130	.0071	.180
1.9685-2.3622	50.000-60.000	.0063	.160	.0079	.200
2.3622-2.7559	60.000-70.000	.0071	.180	.0087	.220

When machining the valve seat counterbores, they must be concentric with the valve guide and have straight walls with flat bottoms. Before pressing in the seats, verify the bore is clean and free of chips or debris. The use of a seat installation tool is recommended to ensure the seat is installed squarely into the bore.