

(57) Abstract: Provided is a vacuum devolatilizer for use in a polymer manufacturing or processing plant. The devolatilizer comprises a vacuum chamber having an inlet for a polymer melt, an outlet for a polymer melt, a vacuum port through which volatiles may be removed and a stirrer shaft port for the entry of a stirrer shaft. The stirrer shaft passes through the at least one stirrer shaft port and extends into the vacuum chamber and carries an agitation means. The stirrer shaft seal is associated with each stirrer shaft port for sealing against the stirrer shaft and each stirrer shaft seal has an external portion outside the vacuum chamber. The devolatilizer is provided with a motor located outside of the vacuum chamber for rotating shaft and comprises means for blanketing the external portion of the stirrer shaft seal with a low oxygen content gas or vapor, e.g., nitrogen, helium, steam, or carbon dioxide.



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— with international search report (Art. 21(3))

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))