

ABSTRACT

DEVOLATILIZING EXTRUDER, AND DEVOLATILIZING EXTRUSION
METHOD OF POLYMER COMPOSITION USING THE SAME AND METHOD OF
PRODUCING POLYMER

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The present invention provides a devolatilizing extruder that can suppress an unreacted monomer and a polymer thereof from adhering in the vicinity of a shaft seal bearing portion during operation.

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Disclosed is a devolatilizing extruder comprising: a cylinder 10 having a polymer composition supply port 12, a gas discharge port 14, a polymer outlet 16 and a through-hole 18; a rotatable screw 20 inserted into the cylinder 10 through the through-hole 18; and a shaft seal bearing portion 30 supporting a shaft portion 20a of the screw 20 extending from the through-hole 18 to the outside of the cylinder 10; wherein the shaft seal bearing portion 30 includes a shaft seal portion 32, a cavity portion 34 formed between the shaft seal portion 32 and the cylinder 10, and a liquid introduction port 36 for introducing a liquid containing a polymerization inhibitor into the cavity portion 34, and also the shaft seal bearing portion 30 has a gap serving as a flow path FP, through which a liquid introduced into the cavity portion 34 through the liquid introduction port 36 is discharged into the cylinder 10, between an inner wall face of the through-hole 18 and a surface of the shaft portion 20a of the screw 20.

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Figure 1