ADVANJET

INNOVATORS IN DIAPHRAGM-JET™ TECHNOLOGY

LineDriver HD connects to your Graco LineLazer,® GrindLazer,® ThermoLazer,® or TapeLazer,™ to provide the most innovative, user-friendly ride-on system available to double your productivity.

THE HEART OF THE JET

Unlike the numerous dynamic fluid seals and chambers found in other jets, only four parts of Advanjet's jet touch fluid: the nozzle plate, O ring, feed tube, and the diaphragm—the heart of the jet.

Designed to eliminate the large sliding valve stem slowing down the process, Advanjet's small mass diaphragm achieves very fast cycle rates. An essential aspect of this novel design is the ability to adjust the energy needed to eject a drop, which provides wider process windows.

DIAPHRAGM MATERIALS

The Advanjet diaphragm is a single unit made of FKM (Viton™ fluoropolymer elastomer), Silicone, FFKM (Kalrez® perfluoroelastomer), or EPDM (ethylene propylene diene terpolymer), as shown at right.

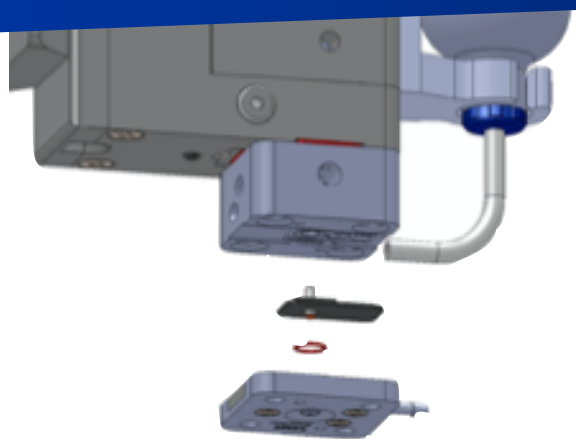
DIAPHRAGM SIZES

Diaphragms are offered in two sizes: 1.6 mm tungsten carbide or 3 mm stainless steel. The larger ball jets larger drops.

DIAPHRAGM PROFILES

Advanjet offers three diaphragm profiles that characterize the area around the pin. The contoured CL diaphragm is designed for jetting smaller drops than the standard contoured diaphragm.

ADVANJET®
DIAPHRAGM ORDERING GUIDE



The diaphragm is the heart of the unique technology that makes up the Advanjet non-contact jet valve system. Designed to keep the large sliding valve stem from slowing down the microdispensing process, the small mass diaphragm achieves very fast cycle rates.

CHEMICAL COMPATIBILITY

The type of solvent in the dispensed fluid determines its chemical compatibility with the diaphragm. To make sure you have chosen the best diaphragm for your application, take these steps:

1. Soak the diaphragm in the the fluid for 24 hours.

2. Inspect the diaphragm for swelling. Permanent swelling indicates the diaphragm is made of material that is incompatible with the fluid.

The table below shows typical chemical compatibilities.

	DIAPHRAGM MATERIAL		
CHEMICAL	**FKM**	**SILICONE**	**FFKM**
Acetone			•
Acetic Acid		•	•
Ammonia		•	•
Benzene	•		•
Cyclohexane	•		•
Cyclohexanol	•		•
Dimethyl Formaide		•	•
Ethanol		•	•
Hexane	•		•
Isopropanol	•	•	•
Methyl Ethyl Ketone			•
Silicone Oil	•	•	•
Toluene	•		•
Xylene	•		•

ORDERING INFORMATION

PROFILE	SIZE	FKM	SILICONE	FFKM
FLAT	1.6 MM		DK-113	DK-133
	3.0 MM		AD09-2033	
CONTOURED	1.6 MM	DK-122	DK-112	DK-132
	3.0 MM	AD09-2034	AD09-2035	
CONTOURED CL Made to jet smaller drops than the standard contoured diaphragm	1.6 MM	AD09-2040	AD09-2042	
	1.6 MM	DK-121	DK-111	DK-131
	3.0 MM	AD09-2041	AD09-2043	AD09-2044

CONTACT OUR APPLICATION EXPERTS for specific recommendations.
Call 800-746-1334 or visit www.graco.com/advanjet.

MATERIALS

The Advanjet diaphragm can be made of:

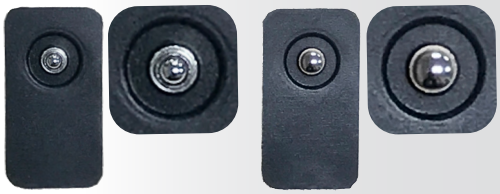
FKM
(Viton™ fluoropolymer elastomer)

Silicone

FFKM
(Kalrez® perfluoroelastomer)

SIZES

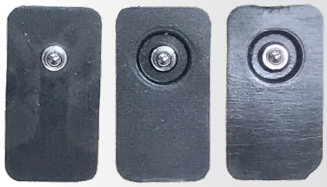
Of the two sizes, the larger ball jets larger drops.



1.6 mm
tungsten carbide

3 mm
stainless steel

PROFILES



Flat Contoured Contoured CL

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