

ZSAE Injector

Bearing Mounting, Positive Displacement Injector, Oil



General

ZSAE Injectors deliver a fixed pre-measured quantity of lubricant at the outlet connection during each discharge cycle. ZSAE Injectors are available in seven discharge rates and are supplied in two body sizes. System distribution connections utilizing Bijur Delimon standard junctions, 4mm (5/32") secondary tubing, compression fittings and connectors can be used with these units.

Application

ZSAE Injectors can only be used in cyclic operation oil systems and feed in one direction only. ZSAE Injectors are designed for mounting directly at bearing inlet.

System Requirements

The lubricating pump in a PDI oil system must build up line pressure to 200 psi (14 bar) minimum to actuate injector discharge. Recommended operating pressure is 300 psi (21 bar). A pressure relief device must be used in the system to permit pressure to drop quickly to approximately 5-10 psi (0.3-0.7 bar) between lubrication cycles to allow injectors to fully reset, ready for next lubrication cycle.

Technical Data

Oil Viscosity	100-6500 SSU (20-1500 cSt) at operating temperature
Mounting	Direct at bearing inlet
Discharge	Preset (non-adjustable) in seven various rates
Maximum Operating Pressure	500 psi (34 bar)
Minimum Operating Pressure	200 psi (14 bar)
Maximum Relieving Pressure	10 psi (0.7 bar)
Maximum Operating Temperature	175°F (80°C)
Seals	Nitrile (Buna N)
Leaktight Junction Connection	4.5 Newton-Meter (40 pound inch maximum)

Typical Tubing Connections

Feed line inlet internal thread 5/16"-24 and seating connection for 4mm (5/32") diameter tubing: Use compression sleeve, part #B1061 (for metal tubing); part #B8272 (for nylon tubing) and compression bushing, part #B1371.

Bearing Mounting

External thread 1/8" NPT suitable for oil tight connection to facilitate ubobtrusive connection at bearing inlet: Use 90° elbow connector 1/8" NPT male and female thread, part #A2768.

PRODUCT PHOTO
COMING SOON

For larger tubing diameter connections, consult Bijur Delimon.

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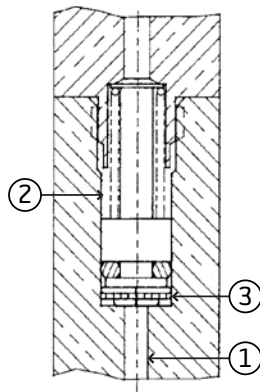
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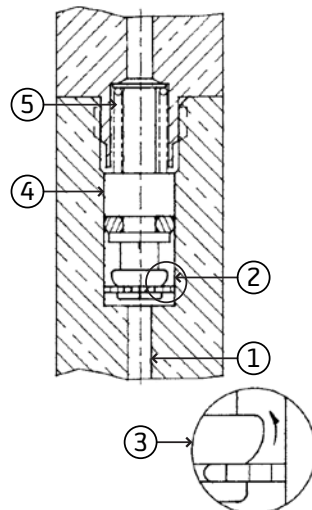
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Operation

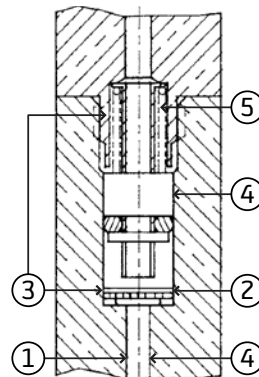
Rest Position



Discharge Cycle



Return Cycle



Illustrations and specifications are not binding in detail.

Designs are subject to modification and improvement without notice.

Rest Position

1. No system pressure.
2. Oil from previous cycle fills spring chamber.
3. Disc seal covers inlet.

Discharge Cycle

1. System pressure builds up and forces oil into inlet.
2. Disc "collapses," oil is forced into inlet chamber around disc seal.
3. Disc transfers seal to hollow piston rod.
4. Disc and piston assembly (piston, spring and hollow transfer tube) are compressed.
5. Oil in outlet chamber is displaced "positively" to the lube point by the advancing pin.
6. Piston assembly continues travel towards outlet until piston reaches shoulder of outlet chamber.

Return Cycle

1. Pressure is quickly relieved from injector inlet.
2. Disc seal relaxes and seals injector inlet as piston is forced downward by spring.
3. Piston forces oil in intake chamber up through hollow transfer tube into spring chamber.
4. Injector is ready for the next cycle.

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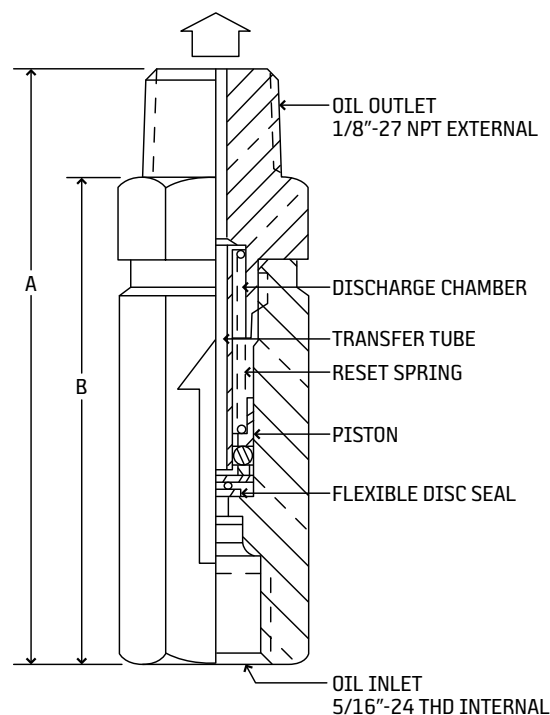
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How to Order

Model	Discharge	Part #
ZSAE-01	0.01cc	18302-01
ZSAE-025	0.025cc	18302-025
ZSAE-06	0.06cc	18302-06
ZSAE-10	0.10cc	18302-10
ZSAE-20	0.20cc	18302-20
ZSAE-30	0.30cc	18302-30
ZSAE-40	0.40cc	18302-40

When ordering, specify by model, discharge and part number, e.g. ZSAE-10 Injector, 0.10cc Discharge, Part #18302-10.

Dimensional Schematics



Model	A	B	Hex Width (across flats)
ZSAE-01	44mm (1.74")	36mm (1.43")	12.7mm (0.50")
ZSAE-025	44mm (1.74")	36mm (1.43")	12.7mm (0.50")
ZSAE-06	44mm (1.74")	36mm (1.43")	12.7mm (0.50")
ZSAE-10	44mm (1.74")	36mm (1.43")	12.7mm (0.50")
ZSAE-20	53mm (2.09")	45mm (1.78")	12.7mm (0.50")
ZSAE-30	53mm (2.09")	45mm (1.78")	12.7mm (0.50")
ZSAE-40	53mm (2.09")	45mm (1.78")	12.7mm (0.50")

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