

# LUBRICATION

The lubrication system has been developed in conjunction with the ALLPER-Plunger system to reduce the friction between the sleeve and the plunger; to thus ensure the smooth passage of the plunger through the sleeve. This is essential for consistent shot velocities and to extend the operating life of both the shot sleeve and the plunger tip. This is necessary for the long shot sleeve or when there is excessive wear under the pour spout.

## PURPOSE

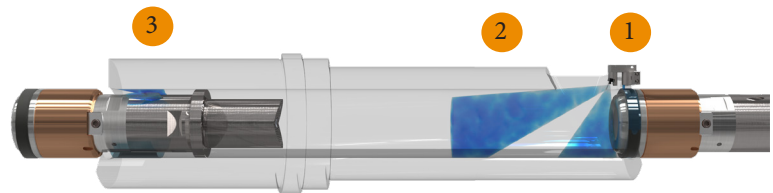
- ▶ Reduce friction between the sleeve and the plunger
- ▶ Provide consistent shot velocities
- ▶ Extend the operation life of both shot sleeve and plunger trip
- ▶ Eliminate the contaminates getting into the casting

## FUNCTION

- ▶ A carefully measured amount of lubricant is vaporized to form a fine mist.
- ▶ The lubricant spray and air nozzle assembly is securely mounted just behind the plunger assembly.
- ▶ The nozzle technology effectively atomizes the lubricant to reduce overall consumption.
- ▶ Nozzles can be quickly interchanged to provide different spray patterns.
- ▶ Spray pressure and duration are both adjustable.

## LUBRICATION

Lubrication should only be applied where it is needed. Every effort should be made to eliminate the possibility of non-metallic substance getting into the casting.



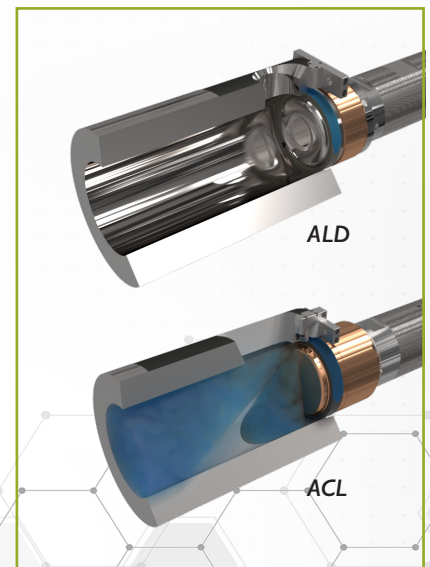
**1) For small shot sleeves**, the bolt-on Allper Lube-Drop (ALD) or a slot and lubrication channel can be machined into the shot sleeve that delivers lube on top of the plunger ring.

**2) For medium shot sleeves**, the bolt-on Allper Combi-Lube (ACL) system delivers a precisely measured amount of lubricant directly on top of the plunger or plunger ring and on shot sleeve bore under the pour spout.

**3) For long shot sleeves**, Castool Rod Lube (CRL) systems delivers a small amount of lube on the die-end bore of the shot sleeve prior to plunger return; in addition to ALD or ACL

### LUBE-DROP

For medium size shot sleeves, the ALD (Allper Lube-Drop) system delivers the lubricant directly on top of the plunger or ring to greatly reduce friction between the sleeve and plunger.



### COMBI-LUBE

For larger and longer sleeves, it is difficult to adequately lubricate the complete interior of the shot sleeve. This can be accomplished with an ACL (Allper Combi-Lube) system. A lubricant is delivered directly on top of the plunger and sprayed onto the bore and pour hole area.

### BENEFITS OF THE CASTOOL LUBRICATION SYSTEM

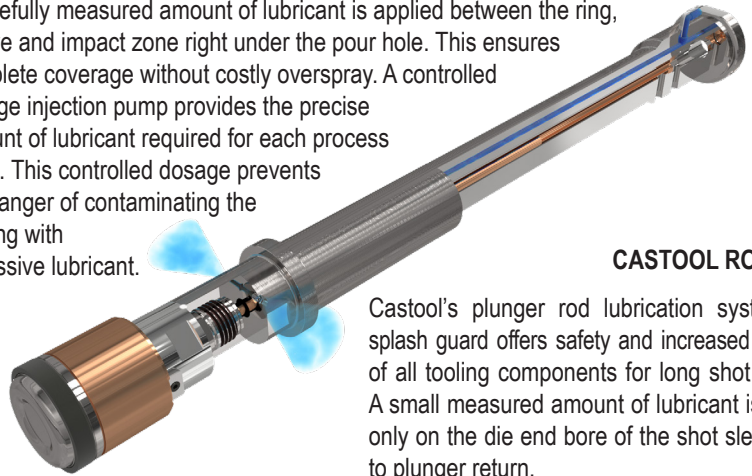
- ▶ Reduce cost per shot
- ▶ Increase plunger life
- ▶ Increase shot sleeve life
- ▶ Reduce contaminates
- ▶ Reduce scrap rate
- ▶ Reduce downtime

*With the Castool Lubrication System, Castool again sets a new standard of excellence in the die casting industry.*

Results may vary depending on individual press characteristics and setup.

Lubricant should be applied only where this needed. Any excess lubricant is an unnecessary cost, and a workplace pollutant. Lubrication should therefore be kept to an absolute minimum. Every effort must be made to eliminate the possibility of any non-metallic substance getting into the mold.

A carefully measured amount of lubricant is applied between the ring, sleeve and impact zone right under the pour hole. This ensures complete coverage without costly overspray. A controlled dosage injection pump provides the precise amount of lubricant required for each process cycle. This controlled dosage prevents the danger of contaminating the casting with excessive lubricant.



#### CASTOOL ROD LUBE

Castool's plunger rod lubrication system with splash guard offers safety and increased longevity of all tooling components for long shot sleeves. A small measured amount of lubricant is applied only on the die end bore of the shot sleeve prior to plunger return.



#### CLS - 200 : PLUNGER LUBRICANT

Vegetable ester based lubricant that is biodegradable. It is blue in colour, remains as a solution and has a high flashpoint. It is also low smoke, and very well priced.

Type:	CLS-200 Vegetable ester based
Part No:	CLS-200 Lubricant
Packaging:	19 L pail, 208 L drum or 1,250 L tote

**USAGE:** Plunger tip lubricant formulated for lubrication of all types of plunger tips: beryllium copper, bronze, steel and all diameters.

## CASTOOL LUBRICATION SYSTEMS



All lubricants used in combination with our dispensing units  
ALD (Allper Lube-Drop),  
ACL (Aller Combi-Lube)  
and CRL (Castool Rod Lube) bring the following advantages:

- ▶ minimum volume of lubricant used (the right amount at the right place)
- ▶ no lubricant loss
- ▶ clean environment DCM
- ▶ lifetime improvement of the shot sleeves and plunger tips



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