



SERVICE BULLETIN —

NEWS ABOUT HALE PUMPS AND PRODUCTS

July 7, 1965

SERVICE BULLETIN #10

TO: All Service Personnel
Major Pump Customers

SUBJECT: Undersize Clearance Rings

Gentlemen:

- I. In the Hale Service Department, we have found that the cost of repairing a centrifugal pump can be reduced by using undersize clearance rings.
 - A. The impeller hubs have to be machined to dimensions shown on attached chart to install undersize clearance rings.
 - B. If impeller is worn badly or is in such condition that it can not be remachined, the impeller(s) must be renewed.
- II. The attached undersize clearance ring chart shows the rings we carry in stock, the basic pump type on which they are used and also the diameter and length to which the impeller hub must be machined.

Yours very truly,
HALE FIRE PUMP COMPANY

C. R. "Skip" Shaffer
Service Manager

encl.

UNDERSIZE CLEARANCE RINGS

PUMP TYPE	PART NO. UNDERSIZE CLEARANCE RING.	* TURN IMP. HUB TO THIS DIAMETER FOR THIS LENGTH AND BLEND INTO SHROUD.	REMARKS
QSM15 & Q	QSM15-32IU	$\frac{5.408}{5.406} \times \frac{11}{16}$	
QSM	QSM-32IU	$\frac{4.908}{4.906} \times \frac{11}{16}$	
QLD & QSD	QLD-32IU	$\frac{4.908}{4.906} \times \frac{11}{16}$	
ZM, ZMF, & ZMHF	ZM-32IU	$\frac{5.408}{5.406} \times \frac{7}{8}$	
ZEY, ZEYC, ZEYCH & ZEYM	ZEY-32IU	$\frac{3.907}{3.905} \times \frac{11}{16}$	
QL & HPQL	QL-32IU	$\frac{4.532}{4.530} \times \frac{7}{8}$	THIS RING CAN ALSO BE USED AS A UNDERSIZE REPLACEMENT PART FOR QL PUMPS WITH ZS-32I & QL-32I RINGS.
Z, ZD, ZF, ZS, ZSF, ZSD, ZSU, ZSUD, ZMM & ZMMD.	ZS-32IU	$\frac{4.552}{4.550} \times \frac{7}{8}$	
ZL & HPZL	ZL-32IU	$\frac{3.927}{3.925} \times \frac{3}{4}$	

* NOTE: IMP. HUB IS .060 TO .080 SMALLER THAN ORIGINAL SIZE.

HALE FIRE PUMP CO.
CONSHOHOCKEN, PA.
6-15-65 R.A.O.