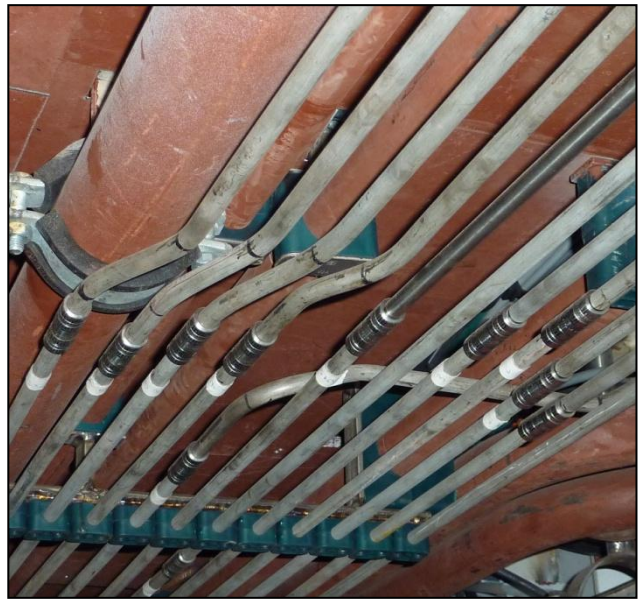




BASIC INSTALLATION MANUAL

March 2011 – Rev.11



Revision	Description of Changes	Date	Initials
Rev.11	-Updated Inspection Gauge information -Added Revision information chart	March 30.2011	RbM

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SAFETY

1. Assemble all equipment properly before operation.
2. Check and secure hose connections before operating the PYPLOK swaging tool.
3. Make sure hose is not kinked or bent.
4. Keep hands, fingers and any obstructions away from the head assembly while PYPLOK swaging tool is in operation. Proper safety eyeglasses must be worn during operation.
5. Only persons trained by a Tube-Mac[®]/ PYPLOK instructor are qualified to operate the PYPLOK swaging tool.
6. Before operating perform a visual inspection of PYPLOK swaging tool including the power unit and head assembly for cracks and tool wear. (See picture below)
7. NEVER OPERATE THE PYPLOK TOOL WITHOUT THE HEAD ASSEMBLY PROPERLY ENGAGED TO POWER UNIT. IMPROPER ENGAGEMENT WILL DAMAGE THE TOOL



PYPLOK SWAGING TOOL PARTS AND EQUIPMENT



1. PYPLOK POWER UNIT
2. PYPLOK HEAD ASSEMBLY
3. 10,000 PSI POWER PACK
4. 10,000 PSI HOSE
5. INSPECTION GAUGE TOOL
6. MARKING PEN – not shown
7. DEBURRING TOOL AND FILE – not shown
8. SQUARE – not shown

HOSE ASSEMBLY



CONNECT 10,000 PSI HOSE TO POWER PACK; MAKING SURE COUPLING IS COMPLETELY TIGHTENED.

CONNECT THE OTHER END OF THE HOSE TO PYPLOK POWER UNIT; MAKE SURE COUPLING IS COMPLETELY CONNECTED.



LOWER DIE BLOCK ASSEMBLY



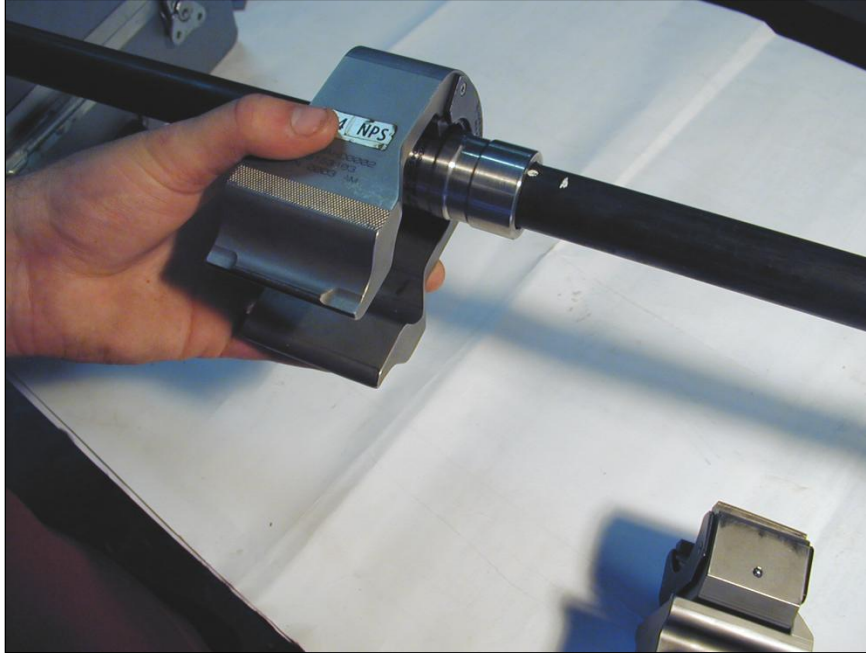
SELECT THE PROPER HEAD ASSEMBLY AND LOWER DIE BLOCK BASED ON THE PIPE OR TUBE SIZE.

FOR MODEL 40 PYPLOK TOOLS INSTALL LOWER DIE BLOCK TO POWER UNIT BY DEPRESSING THE RELEASE BUTTON ON THE SIDE OF LOWER DIE BLOCK AND SLIDE ON TO END OF PISTON ROD.

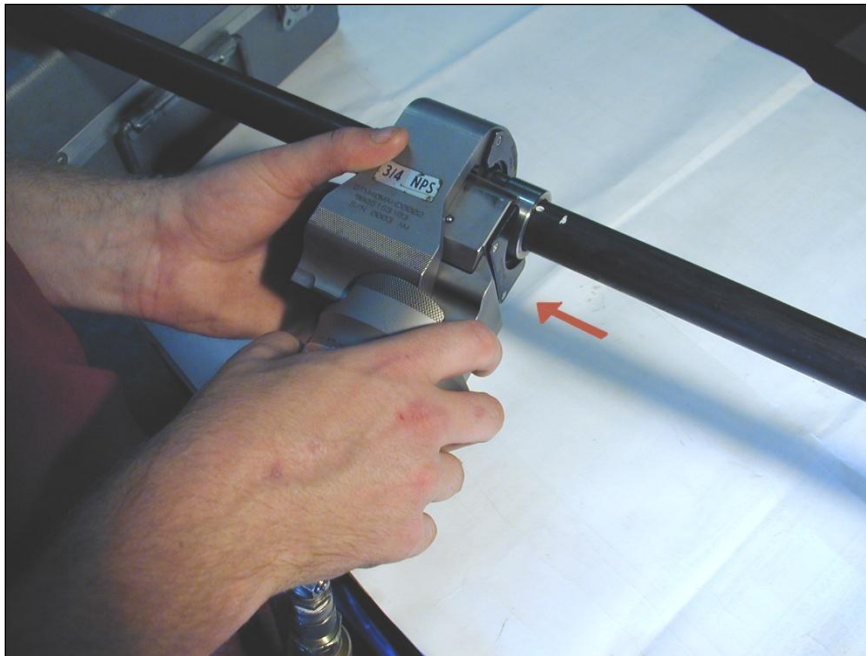
FOR MODEL 55 AND 70 TOOLING A BOLT IS USED TO ATTACHED THE DIE BLOCK TO THE PISTON. PLACE THE DIE BLOCK ONTO PISTON ROD AND SCREW BOLT THROUGH THE DIE BLOCK HOLE UNTIL TIGHTENED.

THE LOWER DIE BLOCK ONLY GOES ON IN POSITION SHOWN ABOVE

UPPER HEAD ASSEMBLY



SLIDE UPPER HEAD ASSEMBLY OVER COUPLING.



SLIDE POWER UNIT WITH ATTACHED LOWER DIE BLOCK ASSEMBLY INTO THE UPPER HEAD ASSEMBLY. THE DETENT BALLS MUST LOCK INTO THE INTERNAL SLOTS OF THE HEAD ASSEMBLY.



PIPE PREPARATION

CUT THE PIPE TO DESIRED LENGTH. CHECK THAT CUT IS SQUARE. UP TO 5° OFF SQUARE IS ACCEPTABLE BUT SQUARE IS THE IDEAL PREPARATION.

DEBURR OUTSIDE DIAMETER OF PIPE WITH A FILE AND THE INSIDE DIAMETER WITH AN INTERNAL DEBURRING TOOL.

CHECK THAT OUTSIDE OF PIPE IS FREE OF ANY SCALE, RUST, PAINT, LACQUER AND ANY MAJOR SCRATCHES OR GOUGES. IT MAY BE NECESSARY TO USE EMERY CLOTH OR AN ABRASIVE WHEEL TO REMOVE ALL DEBRIS FROM THE PIPE DOWN TO BARE METAL. IT IS IMPORTANT TO NOTE THAT ALL CLEANING OF THE EXTERNAL OF PIPE MUST ONLY BE DONE RADIALY AROUND THE PIPE AND NOT LONGITUDALLY.

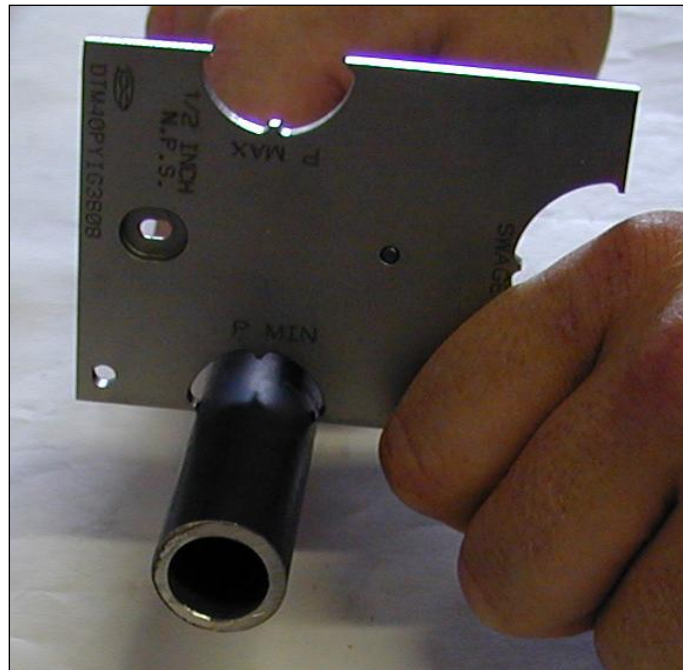
PULL A CLEAN LINT-FREE CLOTH THROUGH THE PIPE FROM THE UNCUT END TO REMOVE ANY CUTTINGS OR FILINGS.



VERIFY DIAMETER OF PIPE USING THE INSPECTION GAUGE



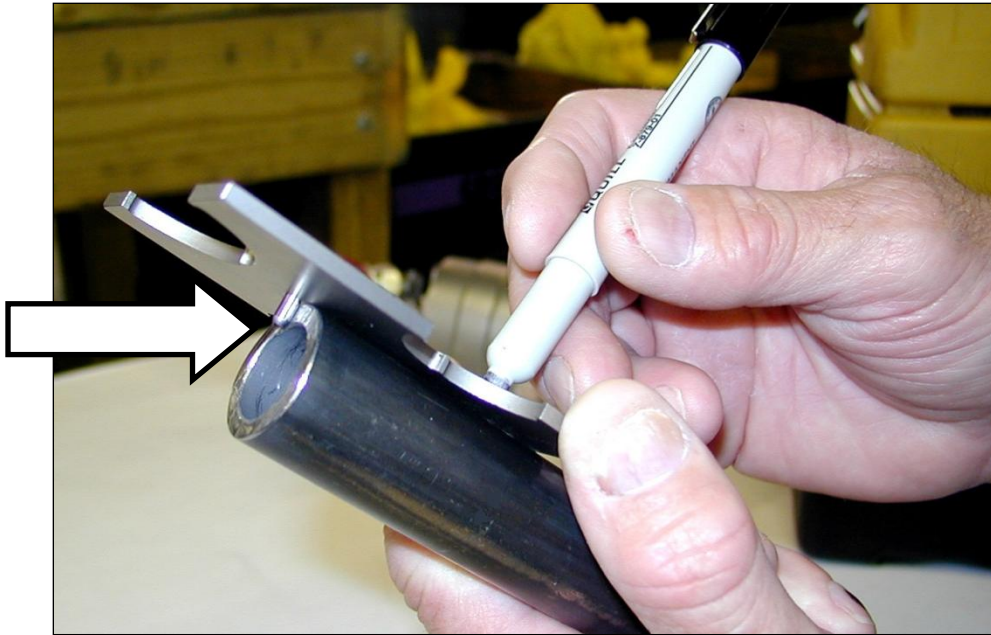
P. MAX GAUGE SHOULD FIT AROUND THE PIPE.



P. MIN GAUGE SHOULD NOT FIT AROUND PIPE.

NOTE: IF THESE CRITERIA ARE NOT MET, THE PIPE CANNOT BE USED.

PIPE MARKING



POSITION THE INSPECTION GAUGE ON THE PIPE WITH THE PIN PRESSED UP AGAINST THE PIPE END AS SHOWN.



MARK PIPE THROUGH MARKING SLOT.



**MAKE A SECOND MARK AT THE END OF THE GAUGE.
THIS MARK WILL BE USED TO INSPECT THE POSITION OF THE
COUPLING AFTER IT HAS BEEN SWAGED.**

COUPLING POSITION AND ALIGNMENT



SLIDE THE COUPLING ON THE END OF PIPE TO FIRST MARKING.



**INSERT END OF OTHER PIPE INTO COUPLING SO THE ENDS
OF PIPE TOUCH INSIDE OF THE COUPLING.
THE MARKINGS SHOULD BE VISIBLE AS SHOWN.**

SWAGE SEQUENCE



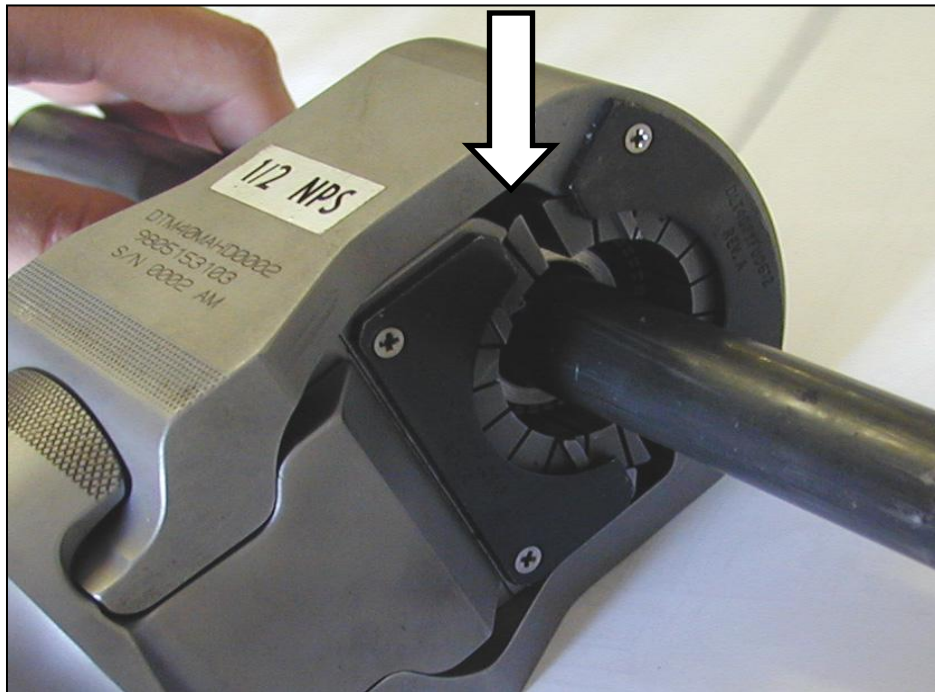
**ALL RAISED SURFACES ON COUPLING MUST BE SWAGED.
SWAGING ORDER IS SHOWN ABOVE. (1, 2, 3 & 4)**

NOTE: ALWAYS START WITH THE OUTSIDE SWAGE FIRST AND WORK TOWARDS THE MIDDLE OF THE COUPLING.

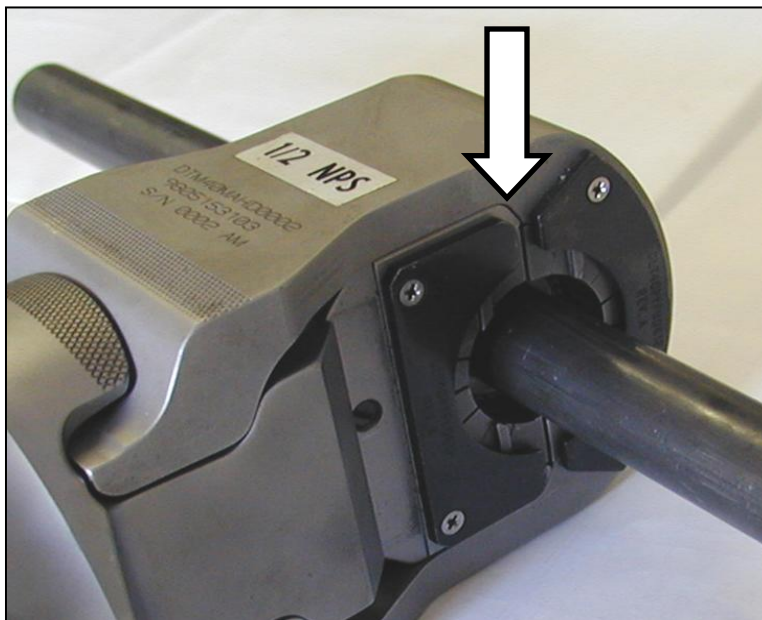
NUMBER OF SWAGES PER END VARIES WITH PIPE SIZE, SEE PAGE 17.

**NOTE: FOR HEAVY WALL PIPE AND DUPLEX/SUPER DUPLEX FITTINGS
TWO SWAGES MAYBE REQUIRED PER BAND. SWAGE AT LOCATION,
ROTATE PYPLOK TOOL 90° AND SWAGE AGAIN. THIS IS ONLY REQUIRED
IF THE INSPECTION GAUGE DOES NOT PASS OVER THE SWAGE BAND
AFTER ORIGINAL CRIMP.**

DIE ENGAGEMENT



BEFORE SWAGING NOTICE THE GAP BETWEEN HEAD ASSEMBLIES.



TO SWAGE; TURN ON THE POWER PACK. THE PRESSURE FROM THE POWER UNIT FORCES THE LOWER DIE BLOCK AND UPPER HEAD ASSEMBLY TOGETHER THUS SWAGING THE FITTING ON THE PIPE OR TUBE. THE SWAGE IS COMPLETE WHEN THE HEAD BOTTOMS OUT AND THE GAP CLOSES.

SWAGE INSPECTION



EACH SWAGE MUST BE CHECKED WITH THE INSPECTION GAUGE. THE INSPECTION GAUGE MUST FIT AROUND THE SWAGE BAND AT TWO LOCATIONS 90° FROM EACH OTHER. IF NOT, ROTATE TOOL 90° AND REPEAT THE SWAGING PROCESS.



THE GAUGE SHOULD SLIDE FREELY OVER THE SWAGED COUPLING. CHECK THAT THE RAISED SURFACES OF THE COUPLING HAVE BEEN FULLY SWAGED.

FINALLY, INSPECT THE POSITION OF THE COUPLING. POSITION THE INSPECTION GAUGE AGAINST THE COUPLING AS SHOWN BELOW. THE SECOND (INSPECTION) MARK OUTSIDE THE COUPLING MUST BE SEEN THROUGH THE SLOT.



For more in-depth installation, inspection, maintenance and other PYPLOK information refer to SOP604-007

Tooling Schedule

Model 10 Power Unit #DLT10MAPW0000					
Pipe NPS Size	Tube OD Size	Metric OD Size	Crimp Die Head Assembly	Inspection Gage	Swages Per End
-	1/4"	-	DLT10PYHA3704	DLT10PYIG3704	1
-	-	6mm	DLT10PYHA3704	DLT10PYIG3906	1
-	-	8mm	DLT10PYHA3908	DLT40PYIG3908	1

Model 40 Power Unit #DLT40MAPW0000					
Pipe NPS Size	Tube OD Size	Metric OD Size	Crimp Die Head Assembly	Inspection Gage	Swages Per End
1/4"	-	-	DLT40PYHA3804	DLT40PYIG3804	1
3/8"	-	-	DLT40PYHA3806	DLT40PYIG3806	1
1/2"	-	-	DLT40PYHA3808	DLT40PYIG3808	2
3/4"	-	-	DLT40PYHA3812	DLT40PYIG3812	2
1"	-	-	DLT40PYHA3816	DLT40PYIG3816	3
-	3/8"	-	DLT40PYHA3706	DLT40PYIG3706	1
-	1/2"	-	DLT40PYHA3708	DLT40PYIG3708	1
-	5/8"	-	DLT40PYHA3916	DLT40PYIG3710	2
-	3/4"	-	DLT40PYHA3712	DLT40PYIG3712	2
-	1"	-	DLT40PYHA3716	DLT40PYIG3716	2
-	-	8mm	DLT40PYHA3908	DLT40PYIG3908	1
-	-	10mm	DLT40PYHA3910	DLT40PYIG3910	1
-	-	12mm	DLT40PYHA3912	DLT40PYIG3912	2
-	-	15mm	DLT40PYHA3916	DLT40PYIG3915	2
-	-	16mm	DLT40PYHA3916	DLT40PYIG3916	2
-	-	18mm	DLT40PYHA3806	DLT40PYIG3918	2
-	-	20mm	DLT40PYHA3920	DLT40PYIG3920	2
-	-	22mm	DLT40PYHA3808	DLT40PYIG3922	2
-	-	25mm	DLT40PYHA3925	DLT40PYIG3925	2
-	-	28mm	DLT40PYHA3812	DLT40PYIG3928	2
-	-	30mm	DLT40PYHA3930	DLT40PYIG3930	3
-	-	35mm	DLT40PYHA3816	DLT40PYIG3935	3

Model 55 Power Unit #DLT55MAPW0000					
Pipe NPS Size	Tube OD Size	Metric OD Size	Crimp Die Head Assembly	Inspection Gage	Swages Per End
1/2"	-	-	DLT55PYHA3808	DLT40PYIG3808	2
3/4"	-	-	DLT55PYHA3812	DLT40PYIG3812	2
1"	-	-	DLT55PYHA3816	DLT40PYIG3816	2
1-1/4"	-	-	DLT55PYHA3820	DLT55PYIG3820	3
1-1/2"	-	-	DLT55PYHA3824	DLT55PYIG3824	3
-	1-1/4"	-	DLT55PYHA3720	DLT55PYIG3720	2
-	1-1/2"	-	DLT55PYHA3724	DLT55PYIG3724	2
-	2"	-	DLT55PYHA3824	DLT55PYIG3732	2
-	-	30mm	DLT55PYHA3930	DLT40PYIG3930	2
-	-	35mm	DLT55PYHA3816	DLT40PYIG3935	2
-	-	38mm	DLT55PYHA3724	DLT55PYIG3938	2
-	-	42mm	DLT55PYHA3820	DLT55PYIG3942	3
-	-	44.5mm	DLT55PYHA4044	DLT55PYIG4244	2
-	-	50mm	DLT55PYHA3824	DLT55PYIG3950	3
-	-	57mm	DLT55PYHA4057	DLT55PYIG4257	3

Model 70 Power Unit #DLT70MAPW0000					
Pipe NPS Size	Tube OD Size	Metric OD Size	Crimp Die Head Assembly	Inspection Gage	Swages Per End
1 1/4"	-	-	DLT70PYIG3820	DLT55PYIG3820	3
1-1/2"	-	-	DLT70PYHA3824	DLT55PYIG3824	3
2"	-	-	DLT70PYHA3832	DLT55PYIG3832	3
-	2"	-	DLT70PYHA3824	DLT55PYIG3732	3
-	-	50mm	DLT70PYHA3824	DLT55PYIG3950	3
-	-	56mm	DLT70PYHA3956	DLT70PYIG3956	3
-	-	60mm	DLT70PYHA3832	DLT70PYIG3966	3
-	-	66mm	DLT70PYHA3966	DLT70PYIG3966	3
3"	-	-	DLT70PYHA4048	DLT70PYIG4048	3

IMPORTANT NOTE: FOR SUPER DUPLEX COUPLINGS ON SUPER DUPLEX UNS 32750 or UNS 32760 PIPE, MODEL 55 POWER UNITS MUST BE USED FOR 1" NPS FITTING. MODEL 70 POWERUNIT MUST BE USED FOR 1-1/4", 1-1/2" AND 2" FOR SCHEDULE 40 PIPES ONLY.

Troubleshooting

Problem	Possible cause	Solution
Inspection gauge does not fit the pipe correctly.	Wrong size pipe.	Check for the correct pipe size and also the correct inspection gauge.
Inspection gauge does not fit properly over the swaged fitting.	Complete swage not performed. Pump pressure low. Wrong die used, clogged, or worn. Quick disconnect failed. Incorrect Inspection gauge used. Wrong power unit used.	Re-swage. Check the pump pressure. Inspect/clean dies/head. Replace quick disconnect. Check Inspection gauge. Check Tooling Schedule.
Improper fitting insertion, less/more than required insertion.	Fitting improperly located on pipe before swaging.	Replace fitting.
Dies will not retract after swaging.	Hose not properly connected to the Quick disconnect.	Remove Hose and reconnect properly and fully to the Quick disconnect.

Preventative Maintenance

Procedure	Frequency
Check all components for deep scratches, gouges, dimples or other abnormal surface finish. Discontinue use if noticed.	Before each use.
Check die inserts and head assemblies for foreign material or build up between die insert slots and head assembly. Clean dies/heads as required.	Before each use.
IMPORTANT: Apply water based heavy lubricant between the die set halves and the body of the head assembly and the lower die block.	Every time dies/heads are cleaned.

For other information and to confirm the most current manual please visit:

WWW.PYPLOK.COM