

▼ Shown top to bottom: HF-101, HF-100, HF-102, LX-101, A65, and FZ1055



## Genuine Enerpac System Components

Hydraulic Oil		
Contents	Model Number	Use only genuine Enerpac Hydraulic Oil. The use of any other fluid will render your Enerpac warranty null and void.
1 Quart	<b>HF-100</b>	
1 Gallon	<b>HF-101</b>	
5 Gallons*	<b>HF-102</b>	
55 Gallons	<b>HF-104</b>	
1 Gallon**	<b>LX-101</b>	

\* Packed in two 2 1/2 gallon cans.  
\*\* Hand pump oil.

### HF Oil

- Specially formulated for power pumps
  - high viscosity index
  - maximum volumetric efficiency
  - maximum heat transfer
  - prevents cavitation
  - anti-sludge, anti-rust, anti-foam additives
- Maximum film protective lubricity
  - anti-oxidation additives

### LX Hand Pump Oil

- Specially formulated for hand pumps
  - anti-sludge, anti-rust additives
- Reduced handle effort over HF oil
  - medium viscosity index
  - good low temperature performance
- Not for use in power pumps

### ▼ Oil Specifications Chart

	LX Oil	HF Oil
ISO Grade	15	32
Viscosity Index	101 min	100 min
Viscosity at 210 °F	3.2/3.7 S.U.S.	42/45 S.U.S.
Viscosity at 100 °F	13.5/16.5 S.U.S.	150/165 S.U.S.
Viscosity at 0 °F	<2100 S.U.S.	<12000 S.U.S.
API Gravity	31.0/35.0	31.0/33.0
Flash, C.O.C. °F	370	400
Pour Point, °F	-30	-25
Paraffinic Base Color	Yellow	Blue

## Manifolds

Description		Model No.	Dimensions (in)
<b>7" Long Manifold</b> with 7 female ports.		<b>A-64</b>	
<b>14" Long Manifold</b> that allows direct mounting of control valves to the manifold. 7 female ports.		<b>A-65</b>	
<b>6-Port Hexagon Manifold</b> Plugs furnished for all ports 3/8"-18 NPTF.		<b>A-66</b>	
<b>Premounted Manifold</b> Functions as split-flow valve to control 2 to 4 single-acting cylinders simultaneously. All ports 3/8"-18 NPTF.		<b>AM-21</b> <b>AM-41</b>	

# Hydraulic Oil, Manifolds and Fittings

## Recommended Tubing for Hand Plumbing Applications

Enerpac does not supply high-pressure pipe or tubing but recommends the use of cold drawn steel tubing instead of regular pipe in the following dimensions:

In place of 1/4" pipe use 3/8" tubing with a 0.065" minimum wall thickness.


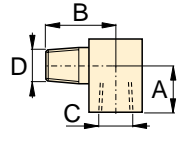
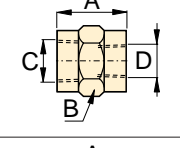

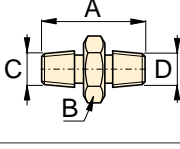

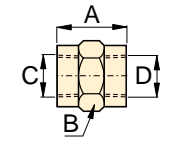
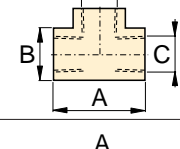

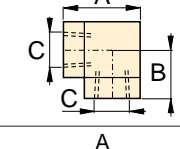
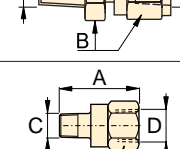

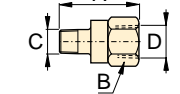
For 3/8" pipe use schedule 80 as a minimum or 1/2" with a 0.095" minimum wall thickness.

For 1/2" pipe use schedule 80 as a minimum or 3/4" tubing with a 0.135" minimum wall thickness.

All tubing wall thicknesses based on a 55,000 psi minimum tensile strength.

**A, AM  
FZ,  
HF, LX  
Series**



Description		Model Number	Dimensions (in)				Diagram						
			A	B	C	D							
<b>Street Elbow</b> From: 3/8"-NPTF Male To: 3/8"-NPTF Female			FZ-1616	.94	1.30	3/8"-18 NPTF	3/8"-18 NPTF						
<b>Reducing Connector</b> From: 3/8"-NPTF Female To: 1/4"-NPTF Female									FZ-1615	1.13	1.00	3/8"-18 NPTF	1/4"-18 NPTF
From: 1/2"-NPTF Female To: 3/8"-NPTF Female		FZ-1625	1.88	1.14	1/2"-18 NPTF	3/8"-18 NPTF							
<b>Hex Nipple</b> From: 1/4"-NPTF Male To: 1/4"-NPTF Male			FZ-1608	1.50	.63	1/4"-18 NPTF	1/4"-18 NPTF						
From: 3/8"-NPTF Male To: 3/8"-NPTF Male									FZ-1617	1.47	.75	3/8"-18 NPTF	3/8"-18 NPTF
<b>Coupling</b> From: 3/8"-NPTF Female To: 3/8"-NPTF Female			FZ-1614	1.13	1.00	3/8"-18 NPTF	3/8"-18 NPTF						
<b>Cross</b> From: 3/8"-NPTF Female To: 3/8"-NPTF Female									FZ-1613	1.77	1.00	3/8"-18 NPTF	-
<b>Tee</b> From: 3/8"-NPTF Female To: 3/8"-NPTF Female		FZ-1612	1.77	1.00	3/8"-18 NPTF	-							
<b>Elbow</b> From: 3/8"-NPTF Female To: 3/8"-NPTF Female			FZ-1610	1.38	.88	3/8"-18 NPTF	-						
<b>Bushing</b> From: 3/8"-NPTF Male To: 1/4"-NPTF Female									FZ-1630	.75	.75	1/4"-18 NPTF	3/8"-18 NPTF
<b>Swivel Fitting</b> From: 3/8"-NPTF Male To: 3/8"-NPTF Female		FZ-1660	1.56	.88	3/8"-18 NPTF	3/8"-18 NPTF							
<b>Adaptor</b> Female	Male		FZ-1055	1.75	.94	1/4"-18 NPTF	3/8"-18 NPTF						
3/8"-18 NPTF	1/4"-18 NPTF								FZ-1633	1.69	1.13	1/4"-18 NPTF	1/2"-14 NPTF
1/2"-14 NPTF	3/8"-18 NPTF								FZ-1634	1.69	1.13	3/8"-18 NPTF	1/2"-14 NPTF