

## AZ-2 Series Air Operated High Pressure Hydraulic Pumps

- Capable of generating pressures of up to 42,500 PSI.
- Oil or water service.
- Chemical duty pumps available.
- Will hold pressure without generating heat.
- Will hold pressure without consuming power.
- Infinitely variable output pressure.
- Ideal for pressure testing, operating bolt tensioners, jacks and hydraulic cylinders.



### Volume Outputs Per Stroke

AZ-2 SERIES HYDRAULIC PUMP										
MODEL NUMBER	-21	-27	-36	-60	-97	-144	-180	-237	-323	-458
HYD. PISTON DIA. ins.	1.437	1.315	1.125	0.875	0.687	0.562	0.5	0.437	0.375	0.312
VOL. PER STROKE cu. ins.	4.06	3.382	2.49	1.5	0.928	0.621	0.491	0.376	0.276	0.192
VOL. PER STROKE cc	66.5	55.4	40.8	24.6	15.2	10.2	8.05	6.16	4.52	3.1

### Hydraulic Pressure - Static Conditions

TYPICAL HYDRAULIC PRESSURE - STATIC CONDITION												
AIR DRIVE		20	(1.4)	40	(2.8)	60	(4.1)	80	(5.5)	100	(6.9)	OUTPUT PRESSURE
PRESSURE		PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	
MODEL NUMBER	AZ-2-21	425	29.3	875	60.3	1300	89.7	1750	121	2150	148	
	AZ-2-27	450	31	1000	69	1550	107	2125	147	2700	186	
	AZ-2-36	625	43.1	1400	96.5	2150	148	2850	197	3600	248	
	AZ-2-60	1050	72.4	2275	157	3500	241	4650	321	6000	414	
	AZ-2-97	1750	121	3700	255	5900	407	7700	531	9700	669	
	AZ-2-144	2600	179	5550	383	8500	586	11500	793	14400	993	
	AZ-2-180	3200	221	7100	490	10800	745	14500	1000	18000	1241	
	AZ-2-237	4400	303	9100	628	14000	965	18800	1297	23700	1634	
	AZ-2-323	6000	414	12600	869	19100	1377	25600	1765	32300	2228	
	AZ-2-458	8800	607	18000	1241	27000	1862	36500	2517	45800	3159	

## AZ-2 Series

### Approximate Discharge Rates : 1 of 2

APPROXIMATE RATE OF DISCHARGE - AIR DRIVE 100 PSI (7 BAR)											
OUTPUT PRESSURE		MODEL NUMBER									
		AZ-2-21		AZ-2-27		AZ-2-36		AZ-2-60		AZ-2-97	
PSI	BAR	CIPM	LTRM	CIPM	LTRM	CIPM	LTRM	CIPM	LTRM	CIPM	LTRM
0	0	976	16	817	13.4	622	10.2	378	6.2	238	3.9
250	17	854	14								
500	34	810	13.3	647	10.6	525	8.6				
750	52	683	11.2								
1000	69	622	10.2	549	9	445	7.3	293	4.8	195	3.2
1250	86	529	8.7								
1500	103	476	7.8	458	7.5	381	6.2				
1750	121	361	5.9	409	6.7						
2000	138	223	3.7	342	5.6	332	5.4	256	4.2	175	2.9
2500	172	0	0	169	2.8	273	4.5				
3000	207			0	0	200	3.3	214	3.5	156	2.6
3500	241					45	0.7	189	3.1		
4000	276					0	0	168	2.7	139	2.3
4500	310							149	2.4		
5000	345							132	2.2	128	2.1
6000	414							0	0	112	1.8
7000	483									98	1.6
8000	552									79	1.3
9000	621									46	0.7
10000	690									0	0

## AZ-2 Series

### Approximate Discharge Rates: 2 of 2

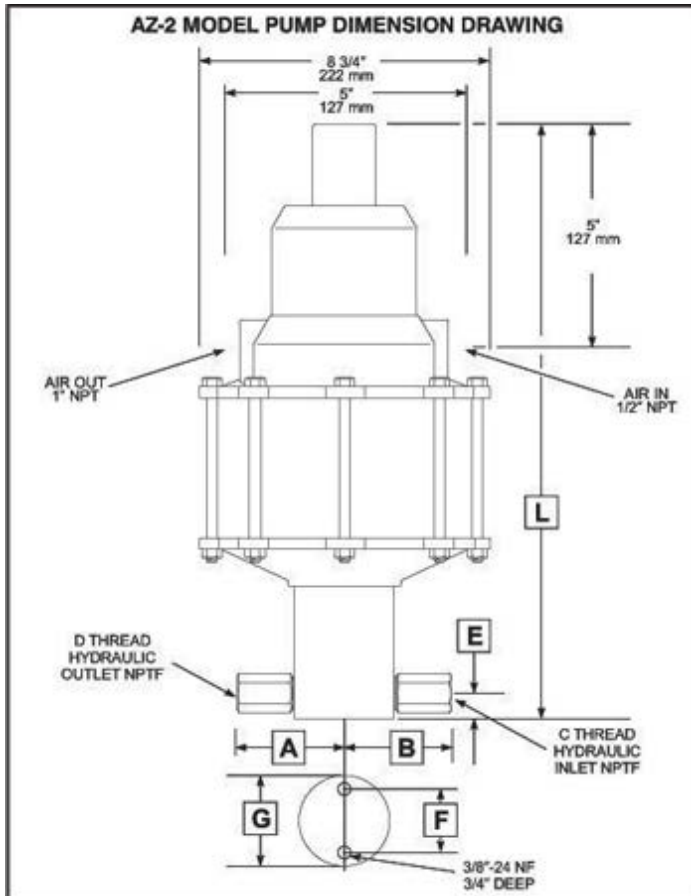
APPROXIMATE RATE OF DISCHARGE - AIR DRIVE 100 PSI (7 BAR)											
OUTPUT PRESSURE		MODEL NUMBER									
		AZ-2-144		AZ-2-180		AZ-2-237		AZ-2-323		AZ-2-458	
PSI	BAR	CIPM	LTRM	CIPM	LTRM	CIPM	LTRM	CIPM	LTRM	CIPM	LTRM
0	0	165	2.7	128	2.1	96	1.6	70	1.14	46	0.75
2000	138	125	2								
2500	172			98	1.6						
3000	207					79	1.3	59	0.96		
3500	241										
4000	276	108	1.8								
4500	310										
5000	345			85	1.4					40	0.65
6000	414	93	1.5			70	1.1	54	0.88		
7000	483										
8000	552	80	1.3	73	1.2						
9000	621					62	1	49	0.8		
10000	690	68	1.1	64	1					35	0.57
12500	862	47	0.8	54	0.9	52	0.9	44	0.72		
15000	1034	0	0	46	0.7	48	0.8	40	0.65	31	0.5
20000	1379			0	0	36	0.6	34	0.55	27	0.44
25000	1724					0	0	28	0.45	24	0.39
30000	2069							14	0.22	21	0.34
40000	2759							0	0	14	0.22
50000	3448									0	0

## AZ-2 Series

### Pump Dimensions

AZ-2 Series pumps consume a maximum of approximately 56 SCFM of air @ 100 PSI.

Flow rates and pressures can be controlled using an air line pressure regulator.



AZ-2-21 thru AZ-2-36							
DIMENSIONS ins./ mm							
L	A	B	C	D	E	F	G
17 1/16	3	4	1	1/2	1	1 3/4	2 1/2
433	76	102			25	44	64

AZ-2-60 thru AZ-2-180							
DIMENSIONS ins./ mm							
L	A	B	C	D	E	F	G
15 3/4	3	3 3/8	1/2	*1/2	7/8	1 3/4	2 1/2
400	76	86			22	44	64

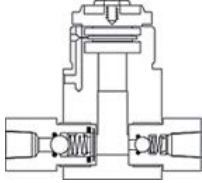
AZ-2-237 thru AZ-2-458							
DIMENSIONS ins./ mm							
L	A	B	C	D	E	F	G
16 1/8	2 5/16	2 1/2	3/8	*	7/8	1 3/4	2 1/2
410	59	64			22	44	64

\* AZ-2-144 & -180 Models have 3/8" MP Outlet  
 AZ-2-237 & -323 Models have 3/8" HP Outlet  
 AZ-2-458 Model has 1/4" HP Outlet

\*For all CF (contamination free) models add 4 15/16" / 125mm to "L" dimension for overall height.

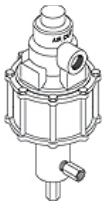
## AZ-2 Series

### Pump Options



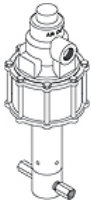
#### SF Modification

Special fluid application. Incorporates dual seals with bleed port to atmosphere. This modification prevents contamination of air motor by fluid being pumped.



#### B Modification

For tank top installation. Inlet check valve is installed in bottom of hydraulic cylinder. For other applications, check valves can be reversed.



#### CF Modification

To insure 100% contamination-free hydraulic fluid operation, air motor is isolated from hydraulic assembly. Also, this model can pump fluids up to 400°F.

#### DS Model

#### DS Modification

The De-stroke model uses a modified air piston to shorten the stroke, which helps prevent internal pump damage due to rapid loss of pressure. Commonly used for burst testing applications.

#### LPS Model

#### LPS Modification

For low pressure starts using air pressure of only 5 psi, increases the output pressure range of the pump.

#### NL Model

#### NL Modification

Pump air motor components are lubricated with a non-melting silicone grease to provide long term lubrication. Eliminates the need to fit an air lubricator in the pump air drive line.

## AZ-2 Series

### Materials of Construction

#### Air Motor

Mainly anodized aluminum with wound composite air cylinder, carbon steel zinc plated tie bolts and Nitrile seals.

#### Hydraulic Section

Standard pumps have 303 stainless steel cylinders, pistons and check valves, Internal check valve parts are 300 series stainless steel except for the balls which are 440C stainless steel. Nitrile seals are standard (other compounds are available).

All hydraulic pistons are hard chrome plated. Other material options are available, contact us for more information.

