

SERIES 'AT': AIR/OIL TANKS

Series AT features:

- 200 PSI Operating Pressure
- Aluminum End Caps
- Internal baffles to reduce aeration and foaming
- Fiber wound translucent tube
- Optional aluminum tube, fittings and sight glass
- Side lug mount (MS2) optional
- Fill port located in top, drain port in bottom cap
- Optional oversized ports for high flow applications, or SAE and BSP ports



The TRD air/oil system gives you the smooth operation typically associated with hydraulic systems, without the expense! Uses shop air, (2) air/oil tanks, and a cylinder equipped with "TH" (hydraulic seals). Low initial investment and low maintenance to operate!

Tanks need to be mounted above the cylinder, but not necessarily by the cylinder. This will create a self-purging oil circuit. It is advisable to size tanks 30-50% larger than cylinder volume, to prevent the tanks from running dry and to allow for heat expansion.

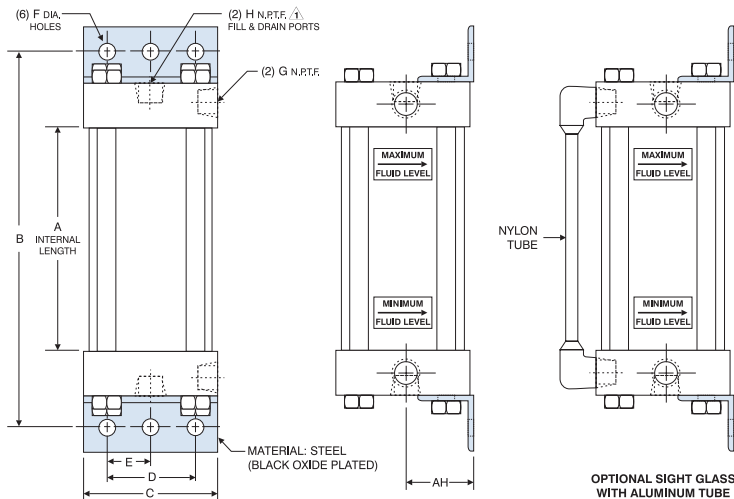
Sizing your air/oil tank:

1. Determine the cylinder volume by multiplying the square inches of piston area by the inches of stroke. (See Table B) Add 30-50% to determine actual tank size.
2. Find the volume closest to your tank volume requirement in Table C. (Note: Tanks of smaller diameters with greater lengths are generally less expensive than larger diameter, short tanks of equal volume).
3. **HOW TO ORDER:**
Specify bore and internal length required.

Example 1: AT250 x 14

(2.50" Bore, 14" internal tank length, with a usable volume of 52 cubic inches).

Example 2: Same as above, with optional sight glass and aluminum tube —
AT250 x 14 - ALUMINUM TUBE AND SIGHT GLASS



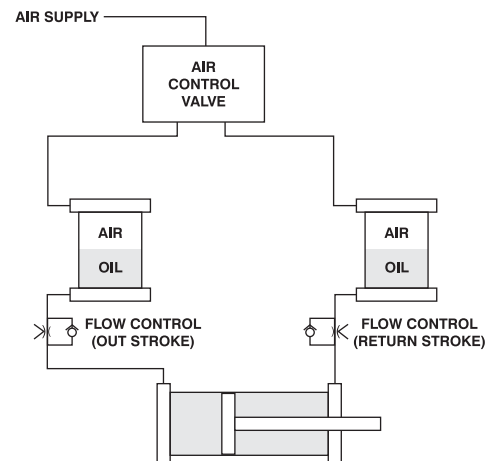
PART NUMBER & VOLUME				PLUS INTERNAL LENGTH		TANK DIMENSIONS						
PART NO.	BORE	AREA	*GALS PER INCH TANK	A	B	AH	C	D	E	F	G	H
AT250	2.50	4.91	.0213	0	4	1.63	3	2.25	1.13	.44	.38	.38
AT325	3.25	8.29	.0359	0	5	1.94	3.75	2.75	1.38	.56	.50	.38
AT400	4	12.56	.0544	0	5	2.25	4.50	3.50	1.75	.56	.50	.38
AT500	5	19.64	.085	0	5.25	2.75	5.50	4.25	2.13	.69	.50	.38
AT800	8	50.26	.2175	0	6.63	4.25	8.50	7.13	3.56	.69	.75	.75

* This is total internal volume, not recommended usable oil capacity.

△ On the AT-500 & AT-800 the fill & drain ports are not on centerline.

Note: When torquing Air/Oil Tank tie rods, refer to page 121 for specifications.

TYPICAL AIR-OIL CIRCUIT



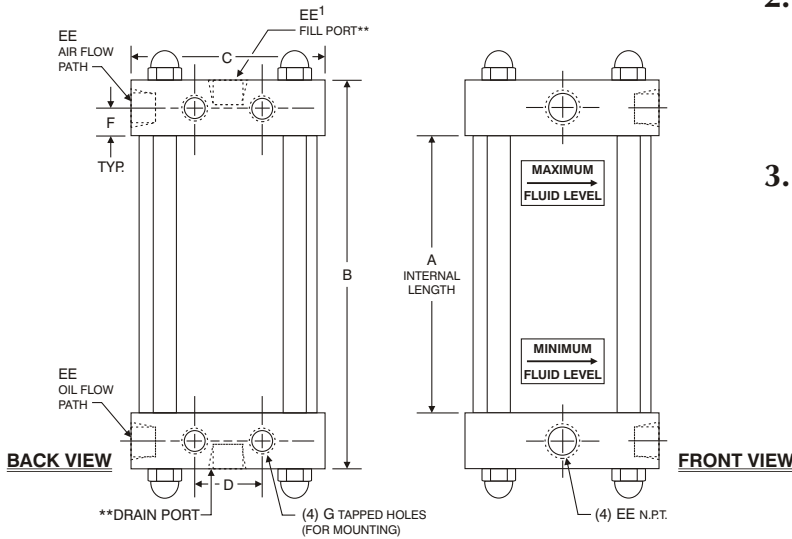
CYLINDER BORE (In.)	PISTON AREA (Sq. In.)
1.50	1.77
2	3.14
2.50	4.91
3.25	8.30
4	12.57
5	19.64
6	28.27
8	50.27

BORE	AREA	ACTUAL INTERNAL LENGTH OF TANK															
		5	6	7	8	9	10	12	14	16	18	20	25	30	35	40	45
2.50	4.91	17	20	24	27	31	34	41	48	55	61	68	86	103	120	137	154
3.25	8.30	29	34	40	46	52	58	69	81	93	104	116	145	174	203	232	261
4	12.57	44	52	61	70	79	88	105	123	140	158	176	220	264	308	352	396
5	19.64	68	82	96	110	123	137	165	192	220	247	275	343	412	481	550	618
8	50.27	176	211	246	281	317	352	422	493	563	633	704	880	1056	1232	1408	1584

SERIES 'SS-AT': AIR/OIL TANKS

Series SS-AT features:

- 303/304 Stainless Steel Hardware
- 200 PSI Operating Pressure
- Internal baffles to reduce aeration and foaming
- Fiber wound translucent tube (non-FDA material)
- Optional stainless steel tube, fittings and sight glass (FDA approved materials)
- Standard mount (MS4), (4 tapped mounting holes back side)
- Side lug mount (MS2) optional
- Fill port located in top, drain port in bottom cap
- Optional oversized ports for high flow applications (For oil velocity exceeding 6 feet per second)



SS-AT MODEL			PLUS INTERNAL LENGTH		TANK DIMENSIONS					
PART NO.	BORE	*GALS PER INCH TANK	A	B	C	D	F	G	EE	EE ¹
SS-AT250	2½	.0213	0	2	3	1¼	7/16	3/8-16 x 5/8 DEEP	3/8	3/8
SS-AT325	3¼	.0359	0	2½	3¾	1½	9/16	½-13 x ¾ DEEP	½	3/8
SS-AT400	4	.0544	0	2½	4½	2 1/16	9/16	½-13 x ¾ DEEP	½	3/8
SS-AT500	5	.0850	0	2½	5½	2 11/16	11/16	5/8-11 x 1 DEEP	½	3/8
SS-AT800	8	.2175	0	3	8½	4½	11/16	¾-10 x 1 1/8 DEEP	¾	¾

* This is total internal volume, not recommended usable oil capacity.
 ** Fill and drain ports located at top & bottom of air oil tank.

CYLINDER BORE (In.)	PISTON AREA (Sq. In.)
1½	1.77
2	3.14
2½	4.91
3¼	8.30
4	12.57
5	19.64
6	28.27
8	50.27

BORE	AREA	ACTUAL INTERNAL LENGTH OF TANK															
		5	6	7	8	9	10	12	14	16	18	20	25	30	35	40	45
2½	4.91	17	20	24	27	31	34	41	48	55	61	68	86	103	120	137	154
3¼	8.30	29	34	40	46	52	58	69	81	93	104	116	145	174	203	232	261
4	12.57	44	52	61	70	79	88	105	123	140	158	176	220	264	308	352	396
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Tanks need to be mounted above the cylinder, but not necessarily by the cylinder. This will create a self-purging oil circuit. It is advisable to size tanks 30-50% larger than cylinder volume, to prevent the tanks from running dry and to allow for heat expansion.

Sizing your air/oil tank:

1. Determine the cylinder volume by multiplying the square inches of piston area by the inches of stroke. (See Table B) Add 30-50% to determine actual tank size.
2. Find the volume closest to your tank volume requirement in Table C. (Note: Tanks of smaller diameters with greater lengths are generally less expensive than larger diameter, short tanks of equal volume).
3. **To order, specify Bore and internal length required.**
 Example: SS-AT250 x 14 (2½” Bore, 14” internal tank length, with a usable volume of 52 cubic inches).

TYPICAL AIR-OIL CIRCUIT

