

LAYFLAT AND OVAL HOSE SUPPLY TUBING



World Leader in Irrigation Technology

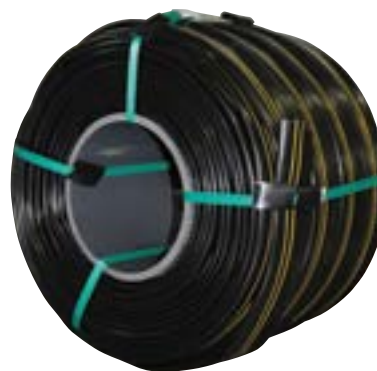
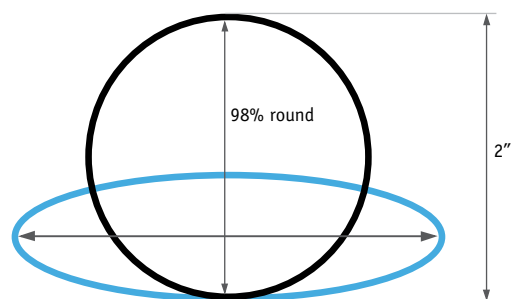
Jain Oval Hose

Product Features

- Manufactured from virgin LLDPE using advanced extrusion technology.
- Once pressurized it becomes 98% round.
- Suitable for surface as well as subsurface installation.
- UV stabilized - no environmental degradation.
- Oval shape reduces freight and storage cost.
- Complies with ASAE standards.
- Most sizes are available in both 42 and 21 psi rating.
- Each batch passes through the following stringent quality tests to ensure efficient and trouble free performance:
 - Dimensional tolerances.
 - Short term & long term hydraulic pressure.
 - Heat reversion.
 - Carbon black content.
 - Environmental stress crack resistance (ESCR) Tensile Strength and Elongation, 98% round.

A high quality, inexpensive alternative to PVC mains and submains.

Jain Oval Hose is manufactured from virgin LLDPE and the industry's highest quality standards to provide longevity and prevent environmental degradation. Once pressurized, Jain Oval Hose becomes 98% round, while allowing freight and space savings during storage and transportation.



Jain Oval Hose

Jain Oval Hose

Model #	Part #	Description	Coil Length (ft)	Estimated Coil Weight (lbs)	Pallet Quantity
JOH040040F300	11220086	1 -1/2" Oval Hose, 0.40" wall, 21 psi	300	34.7	24
JOH052051F450	11220081	2" Oval Hose, 0.051" wall, 21 psi	450	75	12
JOH077076F200	11220082	3" Oval Hose, 0.076" wall, 21 psi	200	70	24
JOH101100F130	11220083	4" Oval Hose, 0.100" wall, 21 psi	130	77	24
JOH151109F100	11220084	6" Oval Hose, 0.109" wall, 21 psi	100	100	16

Note: 42psi Oval Hose MTO

Jain Oval Hose Specifications

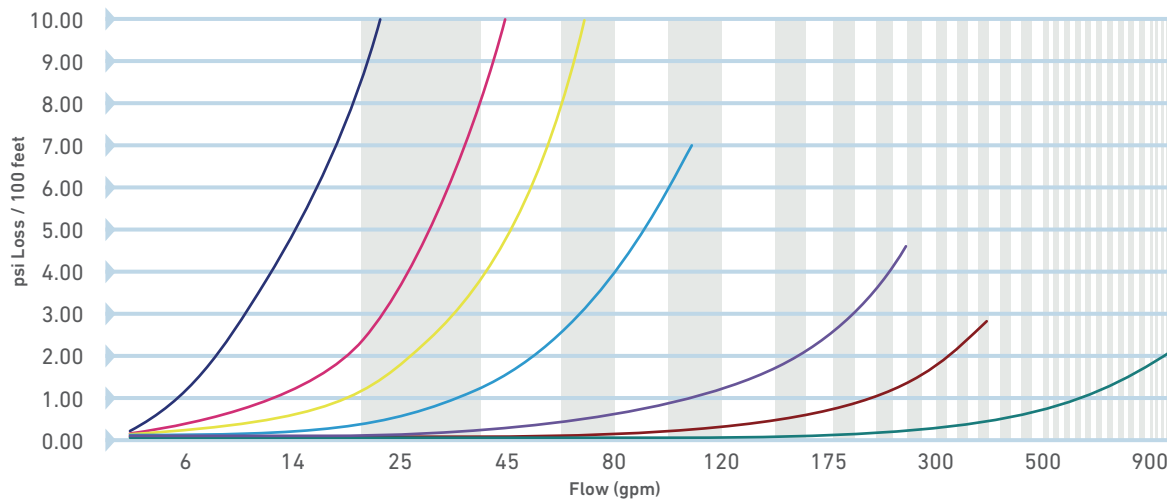
Model #	Part #	Nominal Diameter	Inside Diameter	Wall Thickness	Operating Pressure
JOH040040F300	11220086	1.50 in.	1.60 in.	0.040 in.	21 psi
JOH052051F450	11220081	2.00 in.	2.05 in.	0.051 in.	21 psi
JOH077076F200	11220082	3.00 in.	3.03 in.	0.075 in.	21 psi
JOH101100F130	11220083	4.00 in.	3.99 in.	0.100 in.	21 psi
JOH151109F100	11220084	6.00 in.	5.95 in.	0.108 in.	16 psi

Note: 42psi Oval Hose MTO

Emitter Flow Rates - Nominal Sizes

1" Oval	1 1/4" Oval	1 1/2" Oval	2" Oval	3" Oval	4" Oval	6" Oval
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Flow vs. Pressure



Jain Oval Hose

Jain Oval Hose Friction Loss and Velocity

Size	1" Oval		1-1/4" Oval		1-1/2" Oval		2" Oval		3" Oval		4" Oval		6" Oval	
ID	1.04		1.37		1.6		2.05		3.03		3.99		5.95	
	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity	Friction Loss	Velocity
gpm	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps
2	0.16	0.75	0.04	0.43	0.02	0.32	0.01	0.19	0.00	0.09	0.00	0.05	0.00	0.02
4	0.53	0.51	0.14	0.87	0.07	0.64	0.02	0.39	0.00	0.18	0.00	0.10	0.00	0.05
6	1.08	2.26	0.29	1.30	0.14	0.96	0.04	0.58	0.01	0.27	0.00	0.15	0.00	0.07
8	1.78	3.02	0.48	1.74	0.23	1.28	0.07	0.78	0.01	0.36	0.00	0.21	0.00	0.09
10	2.64	3.77	0.71	2.17	0.34	1.59	0.11	0.97	0.02	0.44	0.00	0.26	0.00	0.12
12	3.63	4.53	0.98	2.61	0.47	1.91	0.14	1.17	0.02	0.53	0.01	0.31	0.00	0.14
14	4.75	5.28	1.28	3.04	0.61	2.23	0.19	1.36	0.03	0.62	0.01	0.36	0.00	0.16
16	6.00	6.04	1.62	3.48	0.78	2.55	0.24	1.55	0.04	0.71	0.01	0.41	0.00	0.18
18	7.38	6.79	1.99	3.91	0.95	2.87	0.29	1.75	0.05	0.80	0.01	0.46	0.00	0.21
20	8.87	7.54	2.40	4.35	1.15	3.19	0.35	1.94	0.06	0.89	0.01	0.51	0.00	0.23
25	13.11	9.43	3.54	5.43	1.69	3.98	0.52	2.43	0.08	1.11	0.02	0.64	0.00	0.29
30	18.04	11.32	4.87	6.52	2.33	4.78	0.72	2.91	0.11	1.33	0.03	0.77	0.00	0.35
35			6.38	7.61	3.05	5.58	0.94	3.40	0.15	1.56	0.04	0.90	0.01	0.40
40			8.06	8.70	3.86	6.38	1.19	3.88	0.19	1.78	0.05	1.03	0.01	0.46
45			9.90	9.78	4.74	7.17	1.46	4.37	0.23	2.00	0.06	1.15	0.01	0.52
50			11.91	10.87	5.70	7.97	1.76	4.85	0.27	2.22	0.07	1.28	0.01	0.58
60					7.84	9.56	2.42	5.83	0.38	2.67	0.10	1.54	0.02	0.69
70					10.27	11.16	3.16	6.80	0.49	3.11	0.13	1.79	0.02	0.81
80							4.00	7.77	0.62	3.56	0.17	2.05	0.03	0.92
90							4.91	8.74	0.77	4.00	0.21	2.31	0.03	1.04
100							5.91	9.71	0.92	4.44	0.25	2.56	0.04	1.15
110							6.98	10.68	1.09	4.89	0.30	2.82	0.04	1.27
120									1.27	5.33	0.34	3.08	0.05	1.38
130									1.46	5.78	0.40	3.33	0.06	1.50
140									1.66	6.22	0.45	3.59	0.07	1.61
150									1.88	6.67	0.51	3.84	0.08	1.73
175									2.46	7.78	0.66	4.48	0.10	2.02
200									3.10	8.89	0.84	5.13	0.13	2.30
225									3.82	10.00	1.03	5.77	0.15	2.59
250									4.59	11.11	1.24	6.41	0.19	2.88
300											1.71	7.69	0.26	3.46
350											2.24	8.97	0.34	4.03
400											2.83	10.25	0.42	4.61
450													0.52	5.19
500													0.63	5.76
600													0.86	6.91
700													1.13	8.07
800													1.42	9.22
900													1.75	10.37
1000													2.10	11.52

Grey boxes: Velocity above 5 fps is not recommended.

Aqua-Flat

Product Features

- Very easy to install and remove, only 35% to 53% the weight of competitive vinyl layflat hose. Reduces manpower requirements and heavy lifting.
- Stays where it's put: Minimal rotation, elongation or snaking under pressures normally used for tape systems. Layflat fittings remain oriented toward the tape rows. With no movement of hose, tape kinking or pulling is reduced or eliminated.
- Easy to install on conventional PVC in-line fittings.
- "T"-bolt clamps recommended for best sealing.
- Uses JAIN brand KMA and FHC adapters as used on vinyl layflat. No special layflat adapters required.
- UV protected. Maintains durability and flexibility for multi-year use.
- Tested by the Center for Irrigation Technology (CIT), California State University Fresno.

Your Natural Choice for...

Jain Aqua-Flat is a great alternative to PVC mains, sub-mains and manifolds due to its longevity and portability. The most innovative manufacturing and quality standards reduce expansion and contraction compared to other products, this reduces leaks due to fittings that come apart or become loose because of temperature changes.

Jain Aqua-Flat XL Specifications

Model #	Part #	Nominal Size	Inside Diameter Inches	Wall Thickness Inches	Working Pressure psi @ 70°F	Coil Length Feet	Coil Weight (lbs)
PFAF1.5-300	11220111	1.5"	1.57	0.059	90	300	48
PFAF2-300	11220112	2"	2.08	0.063	80	300	63
PFAF3-300	11220113	3"	3.07	0.067	70	300	108
PFAF4-300	11220114	4"	4.075	0.079	70	300	141
PFAF5-300	11220116	6"	6.141	0.083	50	300	249
PFAF6-300	11220118	8"	8.09	0.09	45	300	435



Aqua-Flat

Jain Aqua-Flat XL and Sun-Flow Layflat Friction Loss and Velocity

Size	2"		3"		4"		6"		8"	
ID	2.09		3.07		4.13		6.16		8.15	
gpm	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps	psi/100	fps
10	0.10	0.93								
20	0.32	1.87	0.05	0.87						
30	0.66	2.80	0.11	1.30						
40	1.08	3.74	0.17	1.73	0.04	0.96				
50	1.60	4.67	0.26	2.16	0.06	1.20				
60	2.20	5.60	0.35	2.60	0.09	1.44				
70	2.89	6.54	0.46	3.03	0.11	1.67				
80	3.65	7.47	0.59	3.46	0.14	1.91				
90			0.72	3.90	0.18	2.15	0.03	0.97		
100			0.87	4.33	0.21	2.39	0.03	1.08		
110			1.02	4.76	0.25	2.63	0.04	1.18		
120			1.19	5.19	0.29	2.87	0.04	1.29		
130			1.37	5.63	0.34	3.11	0.05	1.40		
140			1.56	6.06	0.38	3.35	0.06	1.51		
150			1.76	6.49	0.43	3.59	0.06	1.61		
160			1.97	6.93	0.48	3.83	0.07	1.72	0.02	0.98
170					0.54	4.07	0.08	1.83	0.02	1.04
180					0.59	4.31	0.09	1.94	0.02	1.11
190					0.65	4.54	0.10	2.04	0.03	1.17
200					0.71	4.78	0.11	2.15	0.03	1.23
225					0.88	5.38	0.13	2.42	0.03	1.38
250					1.05	5.98	0.16	2.69	0.04	1.54
275					1.24	6.58	0.19	2.96	0.05	1.69
300					1.45	7.18	0.22	3.23	0.06	1.84
325							0.25	3.49	0.07	2.00
350							0.28	3.76	0.08	2.15
375							0.32	4.03	0.08	2.30
400							0.36	4.30	0.09	2.46
450							0.44	4.84	0.12	2.76
500							0.53	5.38	0.14	3.07
550							0.63	5.91	0.17	3.38
600							0.73	6.45	0.19	3.69
650							0.84	6.99	0.22	3.99
700									0.25	4.30
750									0.29	4.61
800									0.32	4.91
900									0.39	5.53
1000									0.47	6.14
1100									0.56	6.76
1200									0.65	7.37

Grey boxes: Velocity above 5 fps is not recommended.

Aqua-Flat

Friction Loss x Outlets

Outlets	Factor
1	1
2	0.63
4	0.47
6	0.42
8	0.41
10	0.39
12	0.38
15	0.37
20	0.36
30	0.35
50	0.34
100	0.33

Note: Multiply the factor for number of outlets on a submain times the total friction loss for a length of Aqua-Flat XL to determine the friction loss for the submain length.

Example: 4" Aqua-Flat XL submain, 25 f 2.65 x 83 = 220 gpm. Friction loss for 250' of 4" Aqua-Flat XL from first table is 1.2 psi/100' x 2.5 = 3 psi.

Total friction loss for the submain: Multiple outlet factor x friction loss or .34 x 3 = 1 psi.

Tools and Accessories

Oval Hose Punches (Dp-4 & 7)



Model #	Part #	Description
DP-400S	12070032	400 Series Cutting Tool - Ejector Type NEW & Improved with Red Handle
DP-400	12070065	400 Series Cutting Tool - Pistol Grip
DP-420	12070033	420 Series Cutting Tool - Brown Handle

Lay Flat Punches



Model #	Part #	Description
LFP-1	12070054	for FHA-P, FHC(-1)-06-LS (Orange & Black)
LFP-LS-1	12070055	for FHA-06(09)-LS, PL 50, 55, 60 and 70 KMA (Blue)

T-Handle Hex Installation Tools



Model #	Part #	Description
AP-H-1	12070012	1/2" Hex for FHC-09-LS Single Step & PL-70-KMA
AP-H-2	12070013	FHC(-01)-06-LS, 50, 55 and 60 KMA



Jain is a fully integrated global food / plant production company recognized by Harvard Business to be one of five global sustainability champions, the G-20, for lifting people out of poverty, and Fortune magazine for being a "Change the World Company." Our irrigation manufacturing capabilities include everything from behind the pump to the flush valve at the end of the lateral and everything in between. We lead the industry in manufacturing technology, owning both our extrusion and mold manufacturing equipment providers.

Jain leads plant science research globally across a variety of food crops and is staffed with some of the world's leading research scientists. With the Gandhi Library, Jain now houses the leading collection of the world's best plant science knowledge in a single facility. Our agronomic knowledge is integrated from our world class plant tissue culture operations through our food processing businesses. We research, educate, advance, manufacture, finance, propagate plants, and purchase produce for processing all in an effort to fulfill the Jain mission:

"Leave This World Better Than You Found It"

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