

"A" Series Dimensional Information (Dimensions Shown in Inches)

(1) Model Numbers	Max. (2) Pressure PSI	(3) No. of Cartridges	No. of Cart. Posts	Shipping Weight (Lbs.)	A	B	C	D	E	F	G	(4) H	J	K
A4 AS4 U4	200 300 740 1440	4	2	160 164 172 216	34 34 39 39	6-5/8	12	4-1/4 4-1/4 4-1/2 4-3/4	8 8 8-1/4 8-1/2	3-1/4 3-1/4 3-1/4 3-3/4	2	11-3/8	14-5/8 16-5/8 16-5/8 16-5/8	6-1/2
A6 AS6 U6	200 300 740 1440	6	2	190 194 202 248	45 45 49 49	6-5/8	12	4-1/4 4-1/4 4-1/2 4-3/4	8 8 8-1/4 8-1/2	3-1/4 3-1/4 3-1/4 3-3/4	2	11-3/8	14-5/8 16-5/8 16-5/8 16-5/8	6-1/2
A8 AS8 U8	200 300 740 1440	8	4	190 212 266 344	35 36 41 41	8-5/8	16	4-1/4 5 5-1/2 5-1/2	8 9-1/2 10 10	3-1/4 3-1/4 3-1/2 4	2	13-5/8	16-5/8 18-5/8 18-5/8 18-5/8	7-7/8
A12 AS12 U12	200 300 740 1440	12	4	220 242 290 390	46 46 51 51	8-5/8	16	5 5 5-1/2 5-3/4	9-1/2 9-1/2 10 10-1/4	3-1/4 3-1/4 3-1/2 4	3	14-7/8	16-5/8 18-5/8 18-5/8 18-5/8	7-7/8
A21 AS21 U21	200 300 740 1440	21	7	280 340 422 650	51 51 52 53	10-3/4	16	5 5 5-1/2 6-1/4	10 10 10-1/2 11-1/4	3-1/4 3-1/4 3-3/4 4-1/4	3	17	18-3/4 20-3/4 20-3/4 20-3/4	9-3/8
A30 AS30 U30	200 300 740 1440	30	10	380 430 645 890	51 52 53 57	12-3/4	18	6 6 6 7	11-1/2 11-1/2 11-1/2 12-1/2	3-1/2 3-3/4 4 4-1/2	4	N/A	24-3/4 24-3/4 24-3/4 24-3/4	11-1/2
A48 AS48 U48	200 300 740 1440	48	16	510 570 959 1300	64 66 70 70	16	27-1/2 27-1/2 27-1/2 28-1/2	17-1/4 17-1/4 17-1/4 18-1/2	22-3/4 22-3/4 23 23-1/2	N/A	4	N/A	28 28 28 28	14-7/8
A60 AS60 U60	200 300 740 1440	60	20	700 810 1338 1480	68 70 70 71	18	29-1/2 29-1/2 29-1/2 29-1/2	18-1/2 19 19 19	25-1/2 25-1/2 25-1/2 25-1/2	N/A	6	N/A	30 30 30 30	16-1/4
A81 AS81 U81	200 300 740 1440	81	27	850 1006 1620 2000	68 70 70 74	20	29-1/2 29-1/2 30-1/2 32-1/2	18-1/2 19 19 20	25-1/2 25-1/2 25-1/2 27-1/2	N/A	6	N/A	32 32 32 32	17-5/8

Due to our continuing program of product improvement, specifications are for reference only and subject to change without notice.

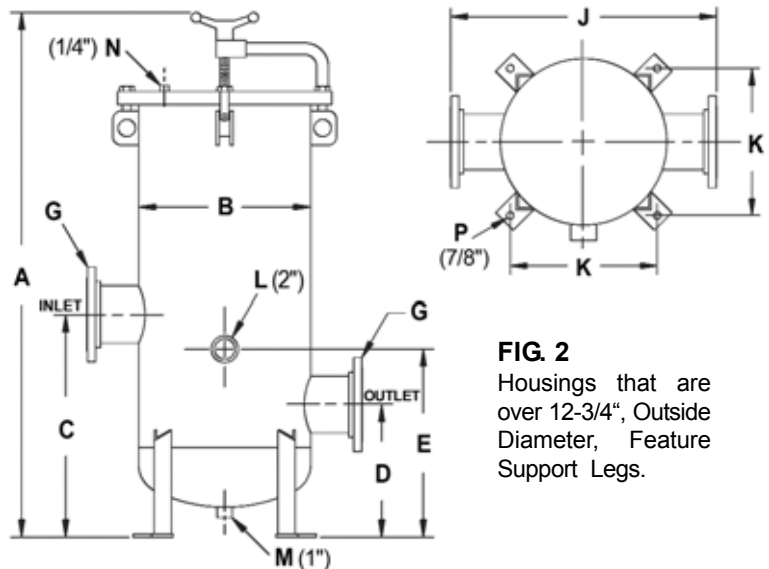
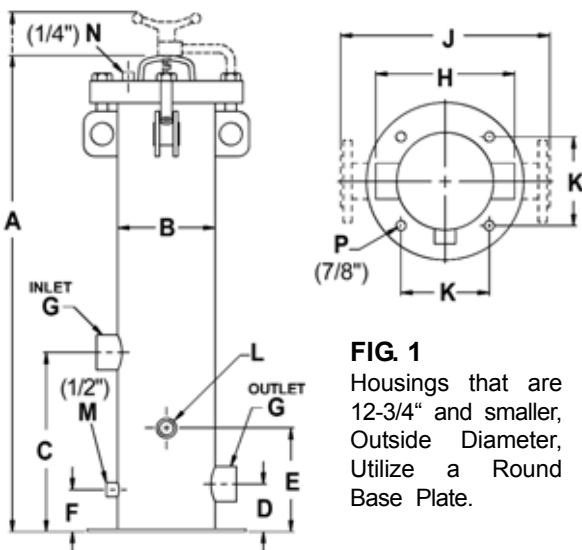
Dimensional Notes

Dimensions Shown in Inches.

- (A) Overall Height, also see (5)
- (B) Vessel Outside Diameter
- (C) Height to Inlet centerline
- (D) Height to Outlet centerline
- (E) Height to Upper Chamber Drain centerline
- (F) Height to Vessel Drain centerline (FIG. 1 only)
- (G) Inlet and Outlet connection size,
2" and 3" Internal Pipe Thread standard;
4" and 6" RF ANSI Flanges standard.

- (H) Internal Pipe Thread Connection- face to face-
Inlet and Outlet (FIG. 1 only)
- (J) Flanged Connection- face to face- Inlet and Outlet
- (K) Mounting Hole spacing
- (L) Internal Pipe Thread Upper Chamber Drain size
(FIG. 1 only - Under 9" O.D. = 1", Over = 2")
- (M) Internal Pipe Thread Vessel Drain size
- (N) Internal Pipe Thread Vent size (1/4")
- (P) Mounting Hole quantity (4 each) and Mounting
Hole diameter (7/8")

- (1) Shown are the first few characters of the part
number. See the back page for full part number
nomenclature.
- (2) Maximum allowable non-shock pressure.
- (3) Number of 9-3/4" or 10" length cartridges,
single length equivalents.
- (4) Maximum Value - some models may be less.
- (5) Davit provided as standard on all models
except the 200 and 300 psi models in the 4, 6,
8 and 12 cartridge sizes.



Standard Construction Notes

Standard "A" Series

Standard "A" Series units are designed for applications involving fresh water and non-corrosive fluids. They are constructed of all welded carbon steel with internal cartridge supports and retainers of brass. The larger models come standard with closure lifting davits for easy cartridge removal. The closure seal uses a commercially available O-Ring. 3" or smaller standard inlet and outlet connections are internal pipe thread (FNPT) type. The 4" and larger sizes are provided with ANSI flanges. Internal pipe threaded vessel drain, and backwash drain and vent are standard, with the size depending on vessel diameter.

"S" Feature

The "S" feature option provides epoxy lined carbon steel construction, with 316 Stainless Steel in the uncoated closure O-Ring seal area. Internal pipe thread, vent and drain connections are also made of 316 Stainless Steel. Brass internal cartridge fittings are furnished as standard, with other materials available on special order. Although exposed areas are made of 316 Stainless Steel, and all wetted carbon steel surfaces are coated with epoxy, care should be taken to use "S" feature housings only with fluids that do not vigorously attack plain steel. The "S" feature is not meant to be used in applications where the all Stainless Steel "U" feature is required.

"U" Series

The "U" Series feature is designed for applications requiring the corrosion resistance and fluid compatibility of Stainless Steel. The "U" feature provides 316 grade Stainless Steel for all wetted surfaces, including the cartridge supports and retainers. The top closure is constructed of high-strength carbon steel, with a Stainless Steel liner plate.

Standard Construction for Glycol Filtration

"A" Series units are especially suited for removing solids from triethylene glycol in natural gas dehydrators. Since brass cannot be used with glycol, plated carbon steel internals are required. Solids in the glycol stream can damage pumps and plug spray nozzles. Most applications require filtration in the 25 to 50 micron range, to provide the protection needed.

Working Pressure Ranges

The standard working pressures for the "A" Series vessels are 200 PSI, 300 PSI, 740 PSI, and 1440 PSI. See the Dimensional Information Chart for more pressure information.

ASME Code Construction

Nowata "A" Series filters are designed in accordance with the Pressure Vessel Code of the American Society of Mechanical Engineers. When required,

each unit can be stamped with the appropriate symbol denoting fabrication and testing performed by specific procedures.

Optional Construction

Seal Material

The standard Buna O-Ring operates at up to 250°F. Viton seals are available for up to 450°F service. Other O-Ring materials, such as Teflon encapsulated silicone, and ethylene propylene are also available.

Internal Materials

Standard brass and optional plated carbon steel internals are stocked at the factory. 316 Stainless Steel is standard for the "U" Series and optional on the "A" Series.

Connections

Inlet and outlet connections in sizes and locations other than standard are available on all Nowata filter housing. All units are available with optional external pipe thread connections or ANSI flanges. Internal pipe threaded drains and vent are provided as standard. The accessory connections are also available in flanged or external pipe thread type, or in non-standard sizes. Special purpose connections, such as relief valve fittings and pressure taps, are available to meet a customer's specific

requirements. Nonstandard connection location or unusual mounting heights or dimensions are also available.

Horizontal Housings

Our rigid cartridge support and seal system is ideally suited for the horizontal configuration of Nowata housings. This is especially important when overhead clearance, or other unique operating considerations preclude the usual vertical installation of the housings.

Extra Length Housing and Cartridges

When extra dirt holding capacity is needed, an extra length housing can be built to hold our 40" length cartridge. This offers the advantage of a 33% increase in cartridge life, for little extra cost.

Accessories

Several items are available to monitor or control filter operation. Ask the Nowata filtration specialist for the Accessories literature sheet for complete details.

Selecting The Right Nowata Filter Housing

Each Nowata filter housing is designated by a set of numbers and letters, giving definition to the specific parameters of the filter. The following diagram breaks down a typical Nowata filter part number into each component designation:

PART NUMBER EXAMPLE:

AS21TC20F4BN

PART NUMBER BREAKDOWN

A	S	21	T	C	20	F	4	B	N	(Options)
MATERIAL AND CLOSURE STYLE	TRIM OPTIONS	NUMBER OF ELEMENTS	CARTRIDGE LENGTH (INCHES)	CODE CONSTRUCTION	PRESSURE RATING	INLET-OUTLET STYLE	INLET-OUTLET SIZE	INTERNAL MATERIAL	CLOSURE SEAL MATERIAL	SPECIAL OPTIONS
A = Flat Top CS	Blank = All Carbon Steel	Number of 9-3/4" or 10" length Cartridges, Single Length Equivalents.	S = 9-3/4" or 10" D = 19-1/2" or 20" T = 29-1/4" or 30" Q = 40"	C = ASME "U" Stamp U = ASME "UM" Stamp N = Non-Code	20 = 200 PSI 30 = 300 PSI 74 = 740 PSI 144 = 1440 PSI	F = RFSO G = Grooved K = Sanitary L = RFLWN M = MNPT N = FNPT P = Socket Weld RF R = RTJSO S = Socket Weld Cplg W = RFWN X = Victaulic	G = 1/2" H = 3/4" I = 1" J = 1-1/4" K = 1-1/2" L = 2-1/2" M = 3-1/2" 4 = 4" 6 = 6" 8 = 8" 10 = 10"	B = Brass Rigid C = Carbon Steel Rigid D = Hastelloy Rigid J = 222 316SS Threaded H = Cup & Spring with Guide Rod Press In/30"-40" Cartridge Length K = Cup & Spring with Guide Rod Press In/ 29-1/4" Cartridge Length S = 316SS Rigid	N = Buna V = Viton E = EPDM F = Spiral Wound Flat S = Teflon Encapsulated Silicon T = Teflon Encapsulated Viton	Letters Assigned by Nowata to Indicate Specials D = (2) 1/4" DP Taps G = Gauge & Taps H = Horizontal Orientation

Typical Applications

Waterflood Filtration

Nowata filters are used to clean the water being injected into wells surrounding a producing oil well. This water must be filtered in order to prevent plugging of the injection formation, which also keeps the fluid environmentally friendly.



Filters For Disposal

Produced water from an oil field, to be re-injected into the ground or reintroduced into the ecosystem, must first be filtered to remove contaminants, and thereby not damaging the environment. Nowata cartridge filters are especially suited for the job, providing excellent, cost effective filtration.

Glycol & Amine Filtration

The removal of solid particles from glycol or amine in a gas treatment system is very important for the performance of this equipment. Nowata filters, with Trapper cartridges, are an excellent choice for this type of filtration.



General Industrial Filtration

Nowata filters, with their wide range of capability in terms of micron ratings, flow rates and working pressures, are excellent for use in many types of industrial filtration. Call a Nowata Filtration specialist to discuss your specific application.

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Growing Strong Since 1907
 Box 678, Nowata, OK 74048
 918-273-2204
 800-259-2204
 Fax: 918-273-2101
 www.nowata.com
 Email: sales@nowata.com