



## *Culligan® Commercial Reverse Osmosis Water Systems*

*Apartments  
Assisted Living  
Cafeterias  
Casinos  
Educational Facilities  
Food Service  
Government  
Grocery  
Health Clubs  
Hospitality/Lodging  
Hospitals  
Institutions  
Laundry  
Manufacturing Facilities  
Office Buildings  
Printing  
Theme Parks  
Travel Centers  
Vehicle Wash*



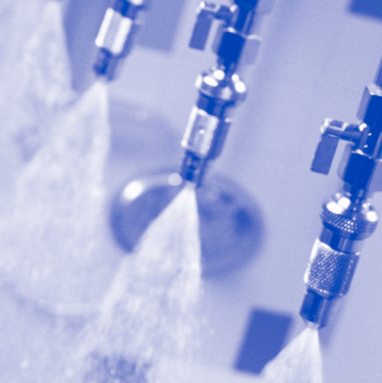
## **The Culligan Series AP and AP Plus Reverse Osmosis System** **The Economical Water Treatment Solution**

### **Series AP and AP Plus Standard Features**

- Thin Film Composite RO Membranes—Rejects significant amounts of dissolved minerals, as well as colloids, particles, organics and silica.\*
- Stainless Steel Module Housing—Corrosion resistant for long life.
- Multi-Stage Centrifugal Pump & Motor System—Optimum energy efficiency and quiet operation.
- Concentrate Recirculation—Saves water.
- Expandable Design—Serves water needs up to 10,000 gpd.
- Cartridge Prefiltration—Includes a replaceable 5-micron element that removes suspended particles to extend component life.
- Pressure Indicator—Displays system operating pressure.

\* Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after system.

(AP-6 Plus Model Shown.)



# The Culligan Series AP and AP Plus

## Applications and Benefits

- Food & Beverage—Superior taste and increased cost savings.
- Ice Production/Drinking Water—Reduces scaling; improves taste and clarity.
- Restaurants—Improves steamer operation.
- Humidification—Reduces scaling and dusting.
- Grocery Stores—Prevents scaling in vegetable misters.
- Pretreatment—For use in deionization systems.
- Boilers—Improves energy efficiency.
- Vehicle Wash—Provides spot-free rinses.
- Water Jet Cutting—Improves operating efficiency; extends orifice life.

## Series AP and AP Plus Standard Features

- Low Pressure Switch—Protects the pump during low feed water pressure conditions.
- Connection for Pretreatment Signal Switch and Level Control—Allows for easy integration and system operation.
- System Indicator Lights—Visually displays system operation or alarm conditions.
- Sturdy Frame Mount Stand—Eliminates the need for mounting brackets.

## Series AP Plus Standard Features

- A NEMA 4X enclosure—Contains a state-of-the-art electronic controller with backlit alphanumeric LCD display.
- TDS Monitor controls the product water quality and displays the feed TDS, product TDS and percent rejection.
- An elapsed time monitor to determine scheduled maintenance.
- A visual and audible alarm for indicating low pressure shut down and poor product water quality conditions.
- Low pressure Auto Restart- Prevents permanent system shutdown from low pressure conditions.
- Panel mounted flow control indicators for effective monitoring of system performance.
- Concentrate throttling valve allows changes in system recovery to suit specific applications.
- 8 user selectable flush options to extend membrane life.

## System Specifications

Inlet Pressure (dynamic):	20–50 psig 138–345 kPa
Operating Pressure:	120–150 psig
Power:	208–230V/60 Hz/1P
Temperature:	33–100°F 1–38°C
Turbidity, max.:	1 NTU
pH Range:	3–11
Chlorine, max.:	0 mg/L
Total Dissolved Solids, max.:	2500 mg/L
Silt Density Index, max.:	3
Langlier Saturation Index, max.:	0
Iron, max.:	0.1 mg/L



**better water. pure and simple.™**

[www.culligancommercial.com](http://www.culligancommercial.com)

1-800-CULLIGAN

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## Model Descriptions

Model	Nominal Capacity* * (GPD)	Approx. Recovery (%)	Motor HP	Approx. Operating Weight (lb)
AP-1	2,000	50	1	168
AP-1 Plus				
AP-2	4,000	50		198
AP-2 Plus				
AP-3	5,800	60		228
AP-3 Plus				
AP-4	7,500	60		258
AP-4 Plus				
AP-5	9,000	75		288
AP-5 Plus				
AP-6	10,000	75		318
AP-6 Plus				

\*\* Approximate initial capacity based on properly pretreated feed water of 500 ppm TDS as NaCl, 77°F, Silt Density Index below 3, and 140 psi applied pressure supplying water to atmosphere. Productivity will vary depending on the feed water conditions.

# Series AP and AP Plus

## Reverse Osmosis Systems

### Specifications and Operating Data

Models	Nominal Capacity <sup>1</sup>	Module Qty & Size	Approx. Recov-ery <sup>2</sup>	Motor	Power Req'd <sup>3</sup>	Pipe Size			Dimensions			Approx. Ship. Weight
						Feed (NPT)	Product (Tube)	Waste (Tube)	Width	Depth	Height	
						in.	in.	in.	in	in	in	
	gpd	in.	%	HP	VAC	in.	in.	in.	in	in	in	lb
	L/day	mm	%	KW	VAC	in.	in.	in.	cm	cm	cm	kg
AP-1	2000	1, 4 x 40	50	1	230V/60/1	3/4	1/2	1/2	20	26	52	245
	7570	1, 102 x 1016	50	0.75	230V/60/1	3/4	1/2	1/2	51	66	132	111
AP-2	4000	2, 4 x 40	50	1	230V/60/1	3/4	1/2	1/2	20	26	52	268
	15140	2, 102 x 1016	50	0.75	230V/60/1	3/4	1/2	1/2	51	66	132	122
AP-3	5800	3, 4 x 40	60	1	230V/60/1	3/4	1/2	1/2	20	26	52	288
	21953	3, 102 x 1016	60	0.75	230V/60/1	3/4	1/2	1/2	51	66	132	131
AP-4	7500	4, 4 x 40	60	1	230V/60/1	3/4	1/2	1/2	20	32	52	308
	28388	4, 102 x 1016	60	0.75	230V/60/1	3/4	1/2	1/2	51	81	132	140
AP-5	9000	5, 4 x 40	75	1	230V/60/1	3/4	1/2	1/2	20	32	52	328
	34065	5, 102 x 1016	75	0.75	230V/60/1	3/4	1/2	1/2	51	81	132	149
AP-6	10000	6, 4 x 40	75	1	230V/60/1	3/4	1/2	1/2	20	32	52	348
	37850	6, 102 x 1016	75	0.75	230V/60/1	3/4	1/2	1/2	51	81	132	158

<sup>1</sup> Nominal initial capacity based on properly pretreated feed water of 500 ppm TDS, temperature of 77° F (25° C), Silt Density Index below 3.0 and an applied pressure of 140 psi. Productivity will vary depending on other feed water conditions.

<sup>2</sup> Depending on feed water quality, it may be possible to operate any unit at a higher recovery to reduce operating costs.

<sup>3</sup> Series AP units can be operated on 230VAC or 208VAC/60 Hz/1 Ph.

NOTE: Operational, maintenance and replacement requirements are essential for this product to perform as advertised.



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LIMITED

# WARRANTY

## COMMERCIAL/INDUSTRIAL REVERSE OSMOSIS SYSTEMS

You have just purchased one of the finest reverse osmosis water conditioning units made. As an expression of our confidence in Culligan products, your reverse osmosis water conditioning unit is warranted to the original end-user, when installed in accordance with Culligan International Company specifications, against defects in material and workmanship from the date of original installation, as follows:

**For a period of ONE YEAR**

**The entire reverse osmosis conditioning unit, including the reverse osmosis modules, but excluding the expendable filter cartridges used in this unit.**

If a part described above becomes defective, within the specified period, you should notify your independently operated Culligan dealer and arrange a time during normal business hours for the dealer to inspect the reverse osmosis unit on your premises. Any part found defective within the terms of this warranty will be repaired or replaced by the dealer. You pay only freight from our factory and local dealer charges.

Of course, damage caused by accident, fire, flood, freezing, Act of God, misuse, misapplication, neglect, alteration, installation or operation contrary to our printed instructions, or by the use of accessories or components which do not meet Culligan specifications, is not covered by this warranty.

Our product performance specifications are furnished with each water conditioning unit. TO THE EXTENT PERMITTED BY LAW, CULLIGAN DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE; TO THE EXTENT REQUIRED BY LAW, ANY SUCH IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE ONE-YEAR PERIOD SPECIFIED ABOVE FOR THE PARTS DESCRIBED IN THIS LIMITED WARRANTY. As manufacturer, we do not know the characteristics of your water supply or the purpose for which you are purchasing a water conditioner. Please understand that the quality of water supplies may vary seasonally or over a period of time, and that your water usage rate may vary as well. Water characteristics can also change considerably if your water conditioner is moved to a new location. For these reasons, we assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us. Further, we assume no liability and extend no warranties, express or implied, for the use of this product on a non-potable water source. OUR OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED TO THE REPAIR OR REPLACEMENT OF THE FAILED PARTS OF THE WATER CONDITIONER, AND WE ASSUME NO LIABILITY WHATSOEVER FOR DIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, GENERAL, OR OTHER DAMAGES, WHETHER FROM CORROSION OR OTHER CAUSES.

### CONSUMERS:

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Similarly, some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Consult your telephone directory for your local independently-operated Culligan dealer, or write Culligan International Company, for warranty and service information.

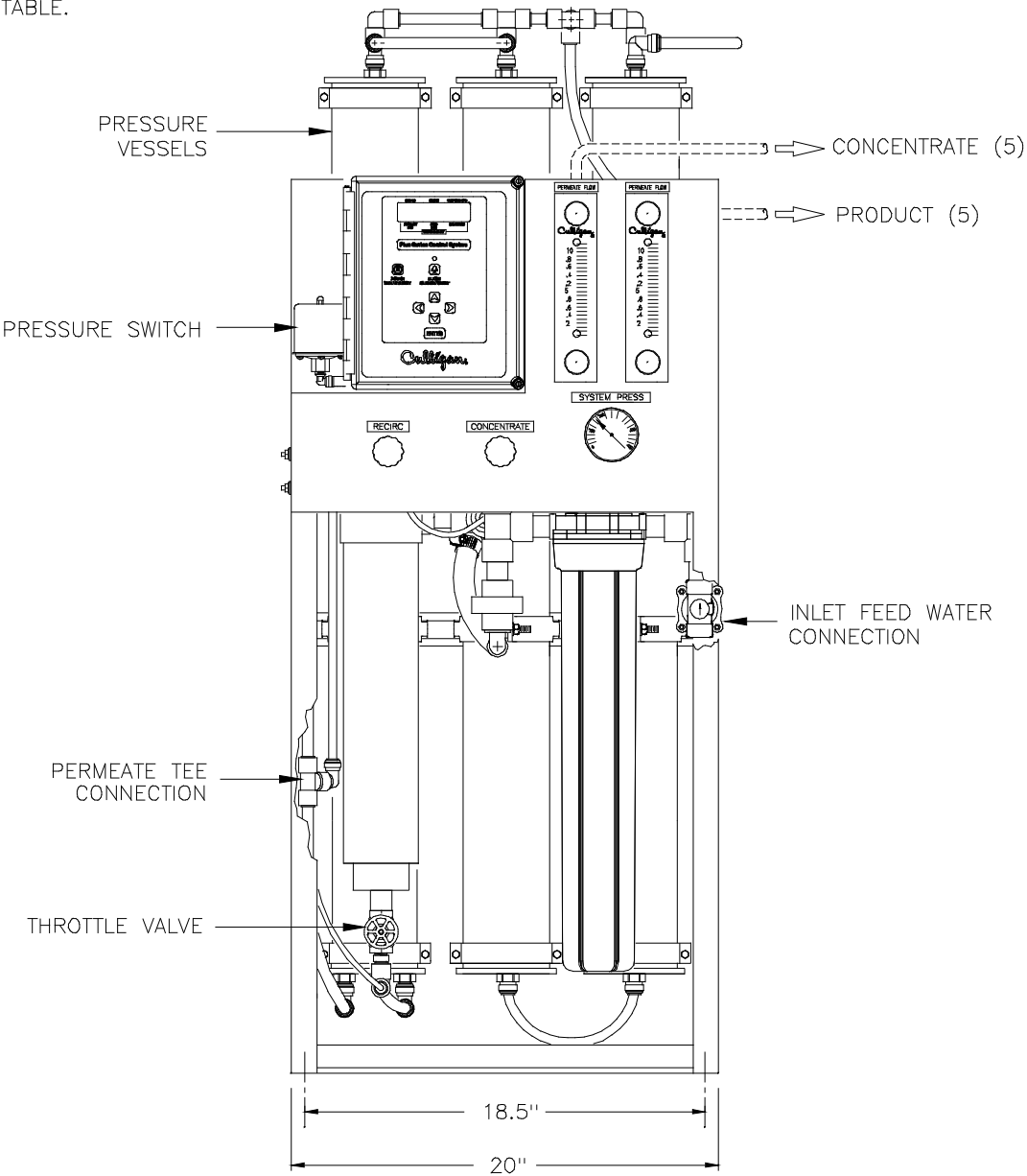
**CULLIGAN INTERNATIONAL COMPANY  
One Culligan Parkway  
Northbrook, Illinois 60062**

NOTES:

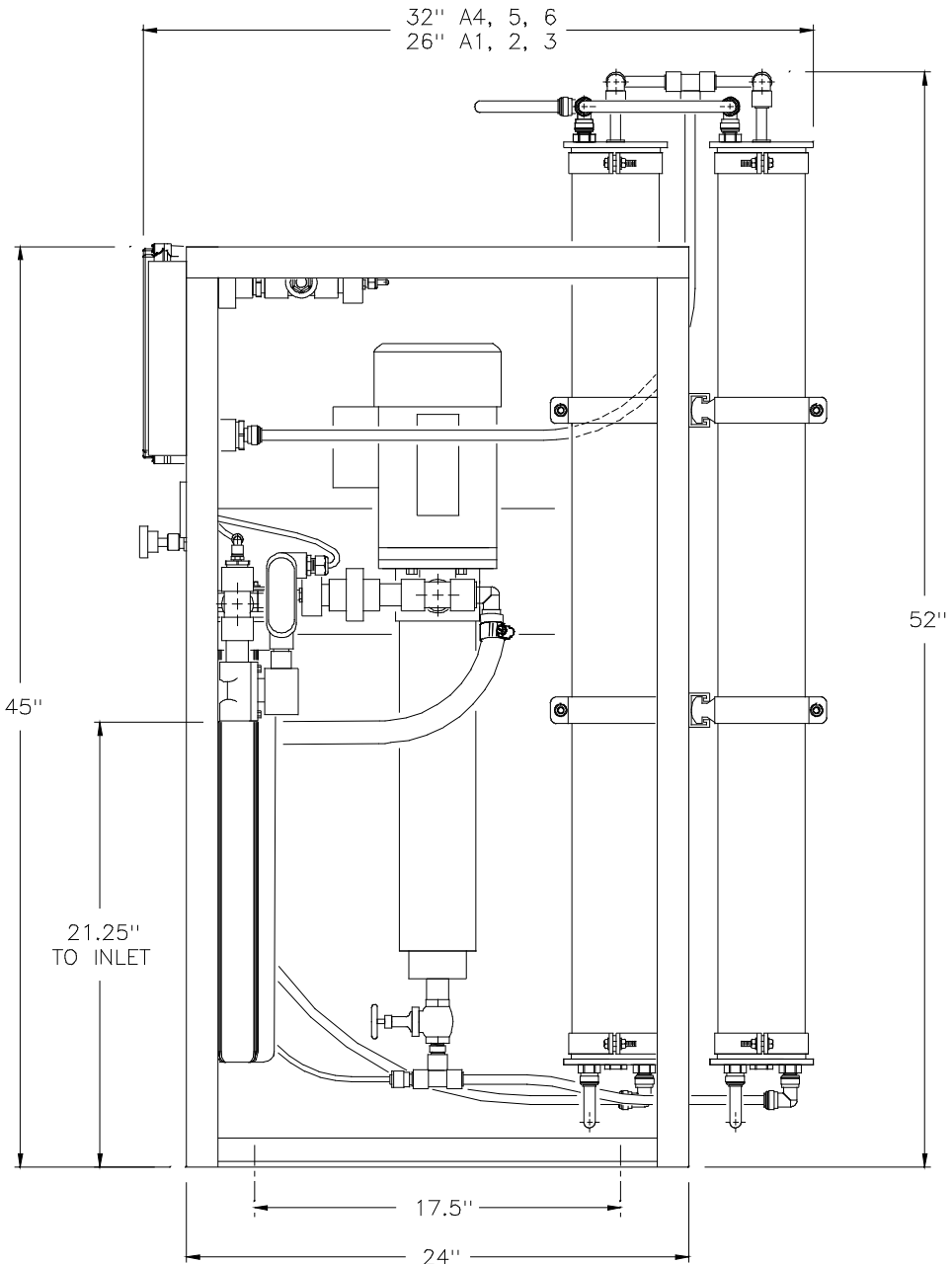
- (1) ALL DIMENSIONS ARE GIVEN IN INCHES AND ARE APPROXIMATE.
- (2) MODEL AP-6 PLUS IS SHOWN.
- (3) ALLOW 45 INCHES ABOVE THE UNIT FOR SERVICING AND REPLACEMENT OF MODULES.
- (4) PROVIDE A DRAIN CAPABLE OF HANDLING AT LEAST 3.5 GALLONS PER MINUTE. DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE TO CONFORM TO SANITATION CODES AND TO PERMIT THE OBSERVATION OF THE DRAIN FLOW. DO NOT INSTALL A VALVE IN DRAIN LINE OR USE PIPE SMALLER THAN LISTED IN TABLE.

(5) PLUMBING CONNECTIONS:

FEED	3/4" NPT
PRODUCT	1/2" TUBE
CONCENTRATE	1/2" TUBE



AP-6 PLUS SHOWN (FRONT VIEW)



SIDE VIEW

DO NOT SCALE DRAWING TOLERANCES: $\pm 1/8$ " UNLESS OTHERWISE NOTED				
Let.	Change	By	App	Date

**Culligan®**  
**ENGINEERED SYSTEMS**  
NORTHBROOK, ILLINOIS

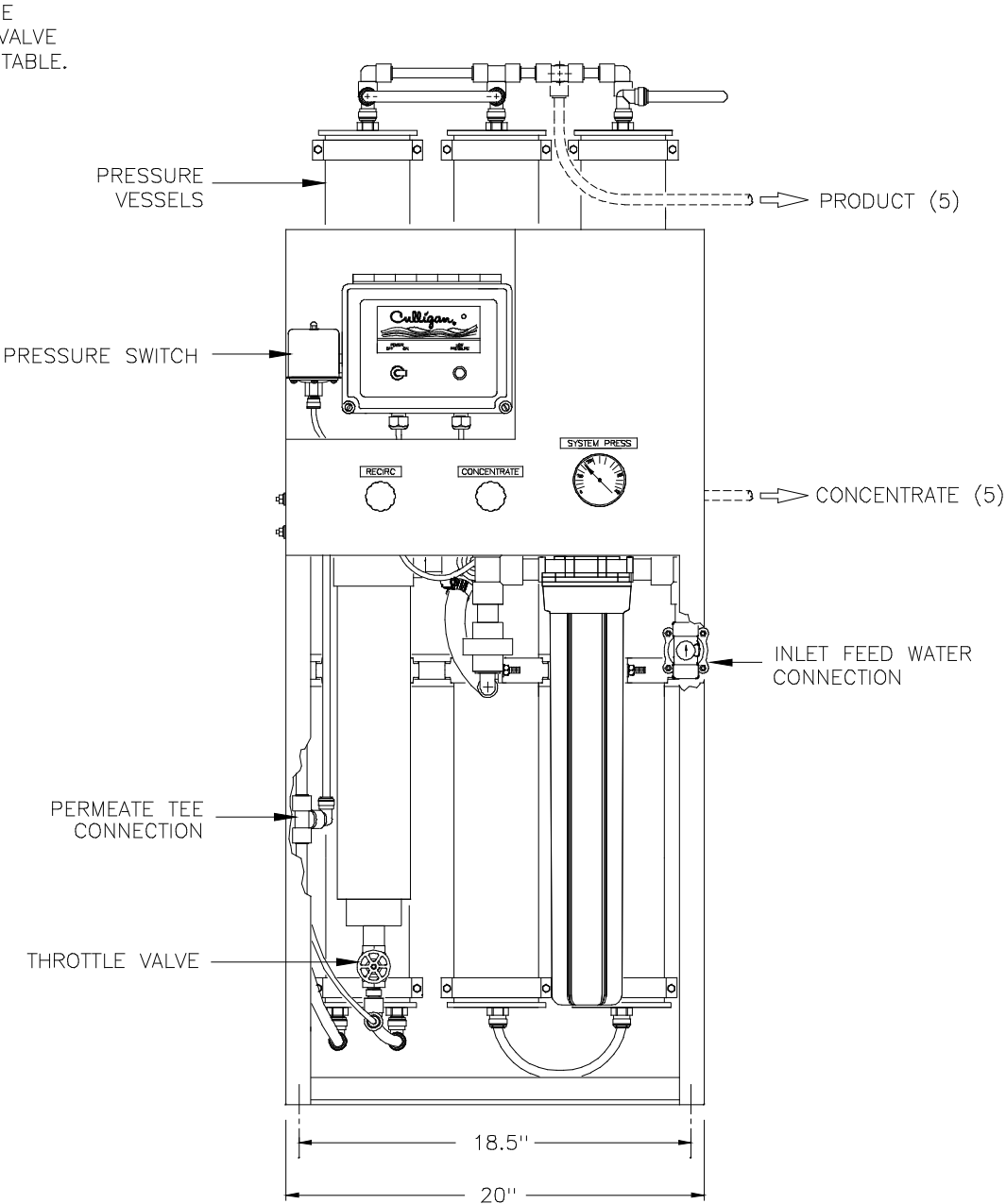
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NAME SERIES AP-PLUS REVERSE OSMOSIS SYSTEMS TECHNICAL DATA SHEET		
DETAILED BY: KMR 5/16/06	APP. BY:	SHEET 1 OF 1
REF. NO.	PART NO. SERIES_AP_PLUS	

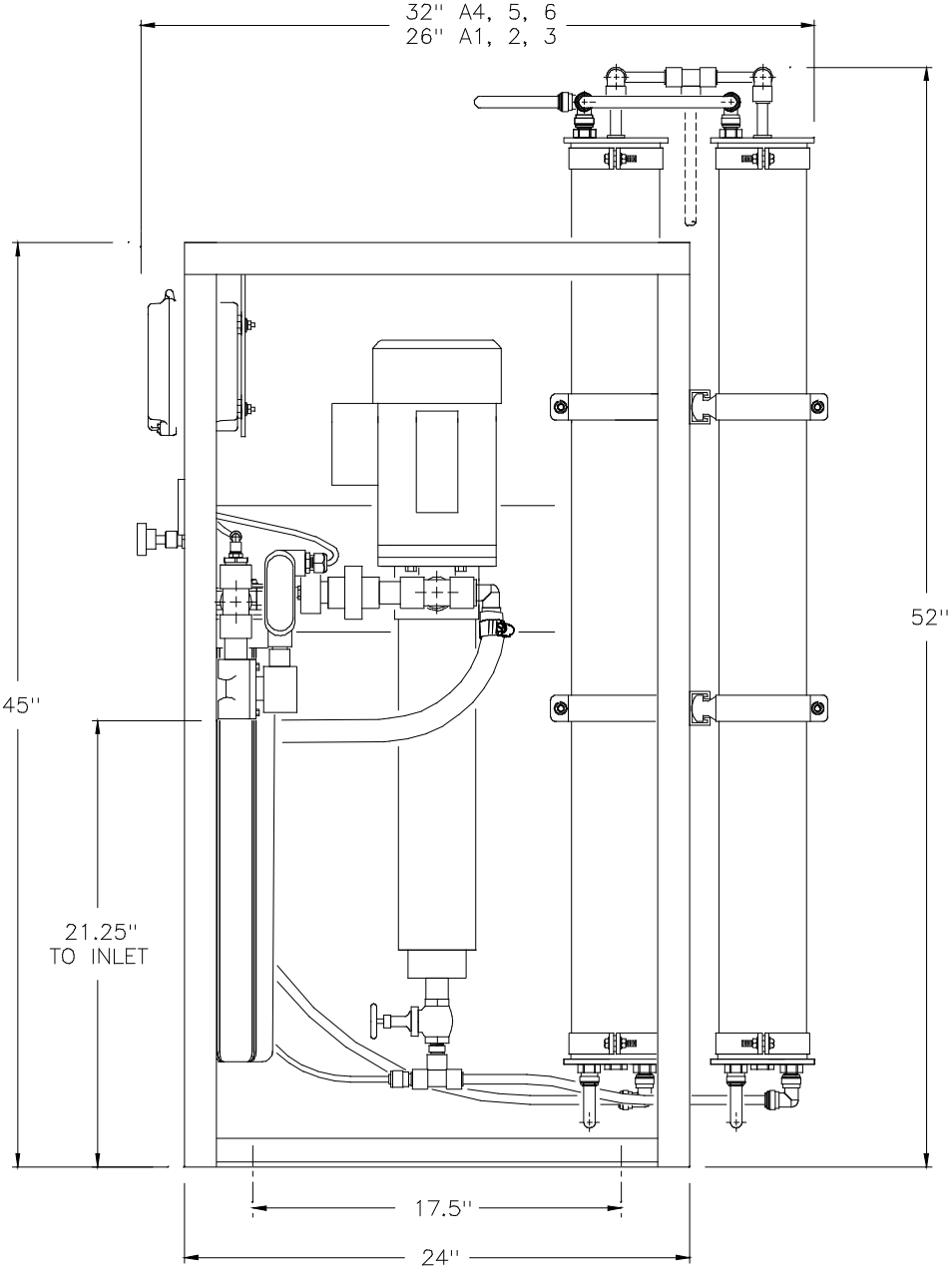
- NOTES:
- (1) ALL DIMENSIONS ARE GIVEN IN INCHES AND ARE APPROXIMATE.
- (2) MODEL AP-6 STANDARD IS SHOWN.
- (3) ALLOW 45 INCHES ABOVE THE UNIT FOR SERVICING AND REPLACEMENT OF MODULES.
- (4) PROVIDE A DRAIN CAPABLE OF HANDLING AT LEAST 3.5 GALLONS PER MINUTE. DO NOT MAKE A DIRECT CONNECTION TO THE DRAIN. PROVIDE AN AIR GAP OF AT LEAST FOUR TIMES THE DIAMETER OF THE DRAIN PIPE TO CONFORM TO SANITATION CODES AND TO PERMIT THE OBSERVATION OF THE DRAIN FLOW. DO NOT INSTALL A VALVE IN DRAIN LINE OR USE PIPE SMALLER THAN LISTED IN TABLE.

(5) PLUMBING CONNECTIONS:

FEED	3/4" NPT
PRODUCT	1/2" TUBE
CONCENTRATE	1/2" TUBE



AP-6 STANDARD SHOWN (FRONT VIEW)



SIDE VIEW

DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED				
Let.	Change	By	App	Date

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NAME SERIES AP-STANDARD REVERSE OSMOSIS SYSTEMS TECHNICAL DATA SHEET		
DETAILED BY: KMR 5/16/06	APP. BY:	SHEET 1 OF 1
REF. NO.	PART NO. SERIES_AP_STD	