

## **Tapworks Northstar Commercial Water Softeners Heavy Duty Series – 1" Valve**

**Cut costs and save energy  
with softened water**

**By eliminating hard water you gain:**

- **Savings on your energy bills**
- **Higher energy efficiency**
- **Lower emissions**
- **Reduced equipment maintenance costs**
- **Less risk of equipment failure due to scale build up**



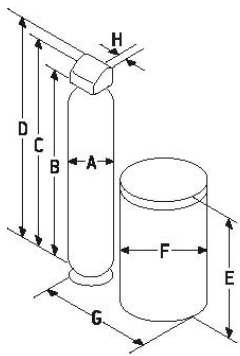
### **Features:**

- All models available as SIMPLEX, DUPLEX, TRIPLEX or QUADPLEX configurations – all run from a single controller
- Easy low cost upgrade – if expansion occurs just add units to the existing plant
- Controller allows service standby, service parallel and proportional salting in multiple tank systems – The controller can be set to maintain a desired efficiency or changed to auto adjusting, salt efficient demand or boiler operation.
- Genius Chip™ control system – the ultimate in salt and water efficiency
- Low voltage electronics – safe and easy to install
- Automatic bypass during regeneration
- High capacity resin – for longer life and improve efficiency
- Self cleaning distributors
- Exceptional flow rates
- Heavy duty control valve – with fewer moving parts to provide the 'Reliability you can Trust'

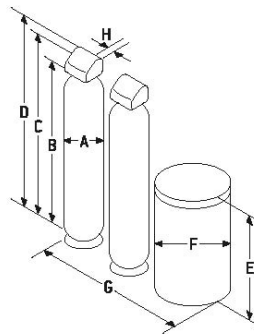
## Specifications

Model	PA 051	PA 071	PA 101	PA 131	PA 191	PA 251	PA321
Resin (l)*	42	57	85	113	170	226	283
Pressure range (min/max – Bar)	2.0 – 8.65	2.0 – 8.65	2.0 – 8.65	2.0 – 8.65	2.0 – 8.65	2.0 – 8.65	2.0 – 8.65
Water Temp Limits °C	4 - 49	4 - 49	4 - 49	4 - 49	4 - 49	4 - 49	4 - 49
Connection Size (inches BSP)	1	1	1	1	1	1	1
Water used per regeneration M <sup>3</sup>	0.39	0.41	0.63	0.68	1.08	1.11	1.14
Salt storage (approx) kg							
Simplex	154	154	317	317	454	454	454
Duplex	317	317	454	454	454	454	454
Triplex	317+154	317+154	454+317	454+317	2 x 454	2 x 454	2 x 454
Quadplex	2 x 317	2 x 317	2 x 454	2 x 454	2 x 454	2 x 454	2 x 454
Electrical Rating	24v-50Hz	24v-50Hz	24v-50Hz	24v-50Hz	24v-50Hz	24v-50Hz	24v-50Hz

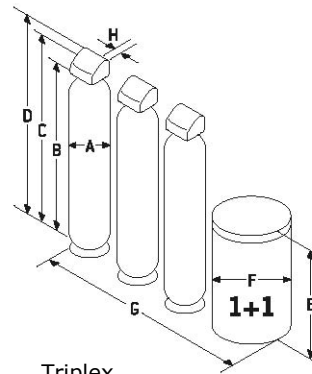
\* Duplex x 2, Triplex x 3, Quadplex x 4



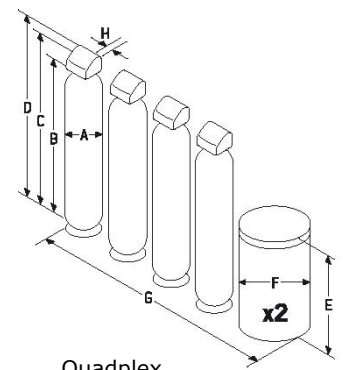
Simplex



Duplex



Triplex



Quadplex

## Dimensions (mm)

Model Simplex	A	B	C	D	E	F	G	H
	Resin Tank	Resin Tank height	Inlet-Outlet height	Overall height	Brine tank height	Brink Tank	mm	Centre Lines
PA 051 / PA 071	305	1372	1475	1620	870	620	1090	96.5
PA 101 / PA 131	432	1474	1588	1734	1250	700	1220	96.5
PA 191 / PA 251 PA321	610	1804	2027	2172	1190	815	1372	96.5
Model Duplex	A	B	C	D	E	F	G	H
PA 051 / PA 071	305	1372	1475	1620	1250	700	1585*	96.5
PA 101 / PA 131	432	1474	1588	1734	1190	815	1970*	96.5
PA 191 / PA 251 PA321	610	1804	2027	2172	1190	815	2290*	96.5
Model Triplex	A	B	C	D	E	F	G	H
PA 051 / PA 071	305	1372	1475	1620	870 & 1250	620 & 700	2775*	96.5
PA 101 / PA 131	432	1474	1588	1734	1250 & 1190	700 & 815	3180*	96.5
PA 191 / PA 251 PA321	610	1804	2027	2172	2 x 1190	2x 815	3660*	96.5
Model Quadplex	A	B	C	D	E	F	G	H
PA 051 / PA 071	305	1372	1475	1620	2 x 870	2 x 700	3325*	96.5
PA 101 / PA 131	432	1474	1588	1734	2 x 700	2 x 815	4095*	96.5
PA 191 / PA 251 PA321	610	1804	2027	2172	2 x 1190	2 x 815	4735*	96.5

\*includes 155mm between tanks