



## INTERMEDIATE SIZE INDUSTRIAL CROSSFLOW COOLING TOWERS

**Manufactured in both treated Douglas fir lumber and fiberglass shapes**

These Standard Model, induced draft type crossflow cooling towers are field constructed, splash or film-filled designed to serve all normal cooling water systems - and when splash fill is utilized, as well as those "dirty water" systems which would place the long-term operation of a film-filled tower in jeopardy.

The standard frame construction consists of Douglas fir lumber however is also available of Redwood and **FRP**. Corrosion resistant materials are utilized for various hardware and connector requirements throughout the tower.

Design and fabrication techniques used have been selected to achieve maximum energy efficiency (fan horsepower and pump head) and materials economy for each model. The fan size and cell dimensions have been optimized on each model to ensure the most efficient operation.

Attention has been given to the economy of the cold-water basin to keep the construction details for the cold-water basin simple. All designs comply with current CTI and National Forest Products Association Specifications for the design of wood structures including temperature related strength reductions.

All towers are manufactured under rigid quality assurance standards which closely control all parts and workmanship during each step of fabrication. Proven techniques and highest quality components are used throughout the manufacturing process to assure correct thermal and mechanical performance for the life of the equipment.

These Series-Type cooling towers have been steadily manufactured for more than 30 years and in some cases almost 50 years and there are literally thousands of installations in operation today. They are the perfect choice for new "green field " projects or when add cells are required for additional capacity and to maintain aesthetics. And are available for "in-kind" replacements minimizing cold water basin, piping and electrical costs. All parts and components are available expediently for repair and emergency services.

Additional models available include Series 9, M10, M15, **M18**, X, Y, W, 3-4, **SIGMA** 100 and 160 **SIGMA** 1000-1200



# SPLASH or FILM FILL OPTIONS

## 4001 FILM / 4008 SPLASH

Tower Model Note 1	GPM per cell	L	W	H	Fan Diameter
4221-1	330 - 1440	8'-0"	18'-3 3/4"	13'-8"	84"
4226-1	184 - 1110	8'-0"	24'-0 1/2"	13'-8"	84"
4231-1	432 - 2160	12'-0"	19'-2 3/4"	13'-8"	96"
4236-1	230 - 1757	12'-0"	25'-0 1/2"	13'-8"	96"
4241-1	576 - 2746	16'-0"	20'-2 3/4"	13'-8"	108"
4246-1	304 - 2269	16'-0"	26'-0 1/2"	13'-8"	108"
4251-1	766 - 3600	20'-0"	21'-5 3/4"	13'-8"	132"
4256-1	427 - 2961	20'-0"	27'-3 1/2"	13'-8"	132"
4331-1	809 - 2880	12'-0"	23'-5 3/4"	17'-8"	132"
4336-1	549 - 2016	12'-0"	31'-6 3/4"	17'-8"	132"
4341-1	1161 - 3840	16'-0"	23'-5 3/4"	17'-8"	132"
4346-1	732 - 2688	16'-0"	31'-6 3/4"	17'-8"	132"
4351-1	1348 - 4800	20'-0"	26'-2 3/4"	17'-8"	156"
4356-1	876 - 3360	20'-0"	34'-3 3/4"	17'-8"	156"
4361-1	1779 - 5760	24'-0"	27'-2 3/4"	17'-8"	168"
4366-1	1143 - 4032	24'-0"	35'-3 3/4"	17'-8"	168"
4441-1	1405 - 3840	16'-0"	26'-2 3/4"	21'-8"	156"
4446-1	973 - 2688	16'-0"	34'-3 3/4"	21'-8"	156"
4451-1	1735 - 4800	20'-0"	27'-2 3/4"	21'-8"	168"
4456-1	1175 - 3360	20'-0"	35'-3 3/4"	21'-8"	168"
4461-1	2156 - 5760	24'-0"	29'-2 3/4"	21'-8"	192"
4466-1	1528 - 4032	24'-0"	37'-3 3/4"	21'-8"	192"
4471-1	2574 - 6720	28'-0"	29'-2 3/4"	21'-8"	192"
4476-1	1737 - 4704	28'-0"	37'-3 3/4"	21'-8"	192"

**Note:**

1. The last number of the model indicates number of cells.
2. Overall length of tower is fan cells x L + 6 1/4"
3. All tower installations require a minimum of 4'-0" from the tower end wall to any vertical obstructions at tower ladder location.
4. Use this bulletin for preliminary layouts only.



# SPLASH FILL OPTIONS

## Series 10

Available with Film Fill

Tower Model Note 1	GPM per cell	L	W	H	Fan Diameter
361-101	135 – 1000	8'-0"	19'-2"	10'-10 1/4"	72"
362-101	165 – 1235	8'-0"	21'-2"	10'-10 1/4"	72"
363-101	135 – 1000	8'-0"	19'-2"	12'-10 1/4"	72"
364-101	165 – 1235	8'-0"	21'-2"	12'-10 1/4"	72"
365-101	190 – 1465	8'-0"	23'-2"	12'-10 1/4"	72"
366-101	205 – 1500	12'-0"	21'-2"	12'-10 1/4"	96"
367-101	245 – 1850	12'-0"	23'-2"	12'-10 1/4"	96"
368-101	205 – 1500	12'-0"	21'-2"	12'-10 1/4"	96"
369-101	245 – 1850	12'-0"	23'-2"	12'-10 1/4"	96"
370-101	285 – 2185	12'-0"	25'-2"	12'-10 1/4"	96"
371-101	270 – 2000	16'-0"	21'-2"	12'-10 1/4"	96"
372-101	325 – 2465	16'-0"	23'-2"	12'-10 1/4"	96"
373-101	380 – 2910	16'-0"	25'-2"	12'-10 1/4"	96"
374-101	343 – 2500	20'-0"	25'-2"	12'-10 1/4"	120"
375-101	410 – 3080	20'-0"	25'-2"	12'-10 1/4"	120"
376-101	475 – 3640	20'-0"	27'-2"	12'-10 1/4"	120"

Note:

1. The last number of the model indicates number of cells.
2. Overall length of tower is fan cells x L + 8"
3. All tower installations require a minimum of 4'-0" from the tower end wall to any vertical obstructions at tower ladder location.
4. Use this bulletin for preliminary layouts only.



# SPLASH FILL OPTIONS

## Series 15

Available with Film Fill

Tower Model Note 1	GPM per cell	L	W	H	Fan Diameter
451-201	201 - 2400	12'-0"	25'-0"	18'-6"	120"
452-201	270 - 3200	16'-0"	27'-0"	18'-6"	144"
453-201	340 - 4000	20'-0"	29'-0"	18'-6"	168"
454-201	410 - 4800	24'-0"	29'-0"	18'-6"	168"
456-201	285 - 3360	12'-0"	29'-0"	18'-6"	120"
457-201	380 - 4480	16'-0"	31'-0"	18'-6"	144"
458-201	475 - 5600	20'-0"	33'-0"	18'-6"	168"
459-201	570 - 6720	24'-0"	33'-0"	18'-6"	168"

Note:

1. The last number of the model indicates number of cells.
2. Overall length of tower is fan cells x L + 6"
3. All tower installations require a minimum of 4'-0" from the tower end wall to any vertical obstructions at tower ladder location.
4. Use this bulletin for preliminary layouts only.



# FILM FILL OPTIONS

## 4008/4009

Tower Model Note 1	GPM per cell	L	W	H	Fan Diameter
4228/9-1	342 – 1462	8'-0"	20'-2"	15'-8 1/4"	84"
4238/9-1	440 – 2234	12'-0"	22'-2"	15'-8 1/4"	96"
4248/9-1	617 – 2994	16'-0"	24'-2"	15'-8 1/4"	120"
4258/9-1	803 – 3770	20'-0"	27'-10"	15'-8 1/4"	132"
4338/9-1	771 – 3426	12'-0"	24'-2"	19'-8 1/4"	120"
4348/9-1	1134 - 4563	16'-0"	26'-10"	20'-8 1/4"	144"
4358/9-1	1285 - 5542	20'-0"	27'-10"	20'-8 1/4"	156"
4368/9-1	1527 - 6253	24'-0"	28'-10"	20'-8 1/4"	168"
4448/9-1	1355 - 5282	16'-0"	27'-10"	24'-8 1/4"	156"
4458/9-1	1627 - 6428	20'-0"	28'-10"	24'-8 1/4"	168"
4468/9-1	2097 - 8012	24'-0"	30'-10"	24'-8 1/4"	192"
4478/9-1	2386 - 9048	28'-0"	33'-6"	24'-8 1/4"	216"
4488/9-1	2916 - 11105	32'-0"	35'-6"	24'-8 1/4"	240"
4498/9-1	3405 - 13016	36'-0"	37'-6"	24'-8 1/4"	264"

Note:

1. The last number of the model indicates number of cells.
2. Overall length of tower is fan cells x L + 3"
3. All tower installations require a minimum of 4'-0" from the tower end wall to any vertical obstructions at tower ladder location.
4. Use this bulletin for preliminary layouts only.



# FILM FILL OPTIONS

## Sigma 120

Tower Model Note 1	GPM per cell	L	W	H	Fan Diameter
121-101	500 - 4500	12'-0"	27'-1 1/2"	13'-3 5/8"	120"
122-101	650 - 6000	16'-0"	29'-1 1/2"	13'-3 5/8"	144"
123-101	650 - 6000	16'-0"	31'-1 1/2"	13'-3 5/8"	168"
124-101	1000 - 7500	20'-0"	31'-1 1/2"	13'-3 5/8"	168"
125-101	1000 - 7500	20'-0"	35'-1 1/2"	13'-3 5/8"	216"
126-101	1000 - 9000	24'-0"	35'-1 1/2"	13'-3 5/8"	216"
127-101	1500 - 10500	28'-0"	35'-1 1/2"	13'-3 5/8"	216"

Note:

1. The last number of the model indicates number of cells.
2. Overall length of tower is fan cells x L + 4"
3. All tower installations require a minimum of 4'-0" from the tower end wall to any vertical obstructions at tower ladder location.
4. Use this bulletin for preliminary layouts only.



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