STR
Torre de Resfriamento/
Cooling Towers

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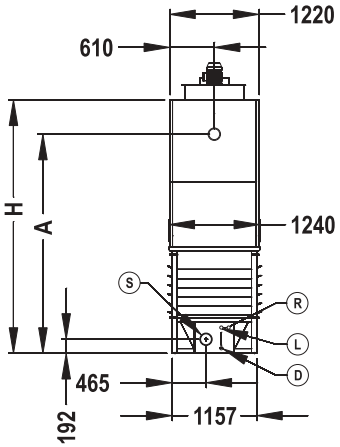
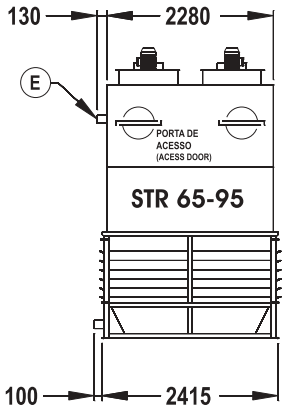
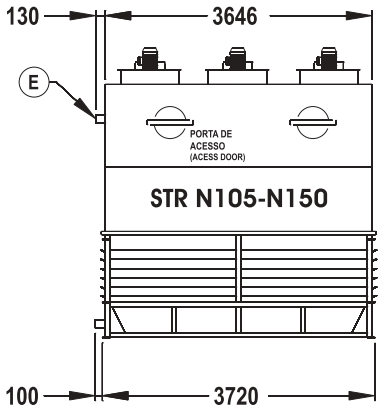
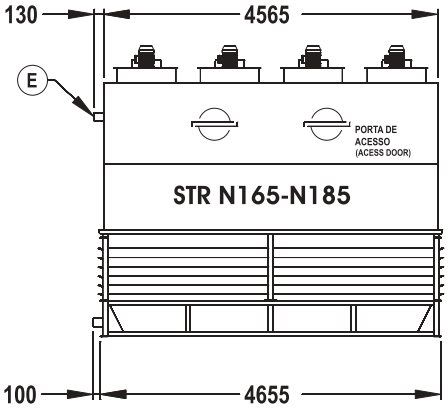
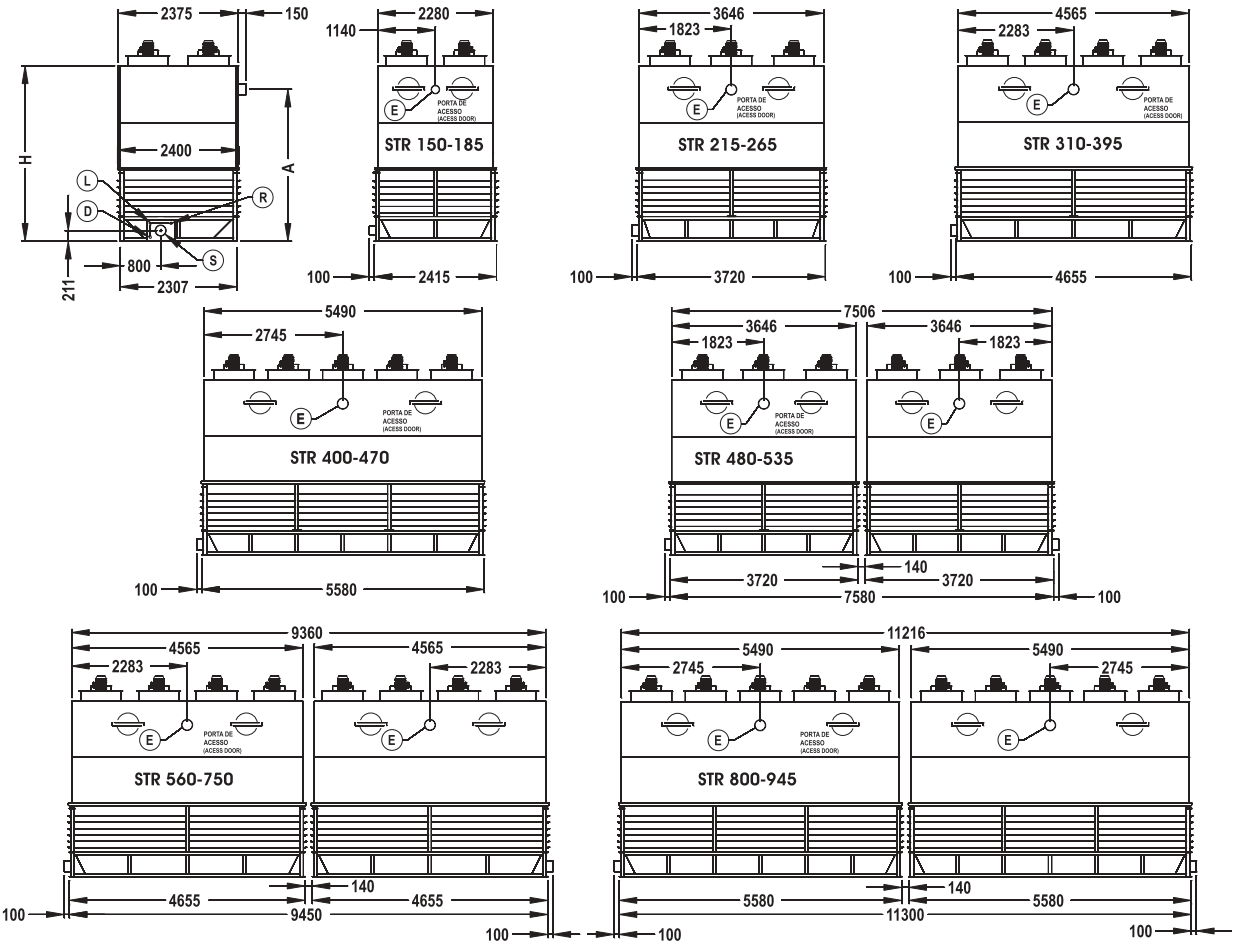




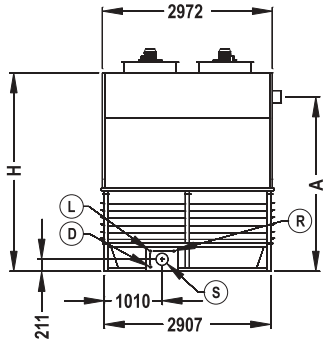


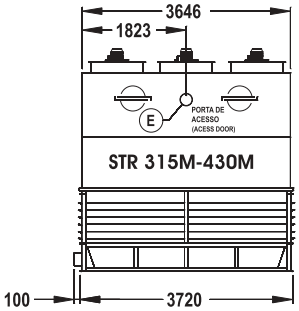


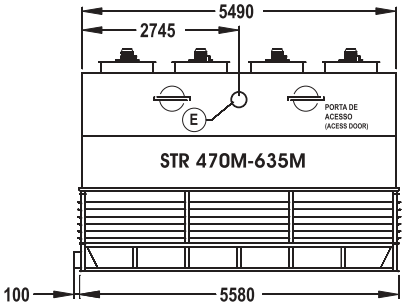
MODELO *MODEL*	PESO/*WEIGHT (kg)*		MOTOR VENT. *FAN MOTOR* (cv)	DIMENSÕES *DIMENSIONS* (mm)		ENTRADA DE ÁGUA "E" *WATER INLET* (pol)	SAÍDA DE ÁGUA "S" *WATER OUTLET* (pol)	REPOSIÇÃO "R" *MAKE-UP* (pol)	LADRÃO "L" *OVER FLOW* (pol)	DRENO "D" *DRAIN* (pol)	VOLUME DE ÁGUA NA BACIA (litros) *WATER BASIN VOLUME (liters)*
	EMBARQUE APROX. *APPROX. SHIPPING*	OPERAÇÃO APROX. *APPROX. OPERATION*		A	H						
STR-65	600	1397	(2X) 2,0	2090	2565	6"	6"	1"	2"	2"	750
STR-70	600	1397	(2X) 2,0	2090	2565	6"	6"	1"	2"	2"	750
STR-75	673	1470	(2X) 2,0	2390	2865	6"	6"	1"	2"	2"	750
STR-85	673	1470	(2X) 2,0	2390	2865	6"	6"	1"	2"	2"	750
STR-95	747	1544	(2X) 3,0	2690	3165	6"	6"	1"	2"	2"	750
STR-N105	905	2172	(3X) 2,0	2090	2565	6"	6"	1"	2"	2"	1200
STR-N120	1015	2282	(3X) 2,0	2090	2565	6"	6"	1"	2"	2"	1200
STR-N135	1015	2282	(3X) 2,0	2390	2865	6"	6"	1"	2"	2"	1200
STR-N150	1125	2392	(3X) 3,0	2690	3165	6"	6"	1"	2"	2"	1200
STR-N165	1354	2985	(4X) 2,0	2390	2865	6"	8"	1"	2"	2"	1550
STR-N185	1485	3116	(4X) 3,0	2690	3165	6"	8"	1"	2"	2"	1550

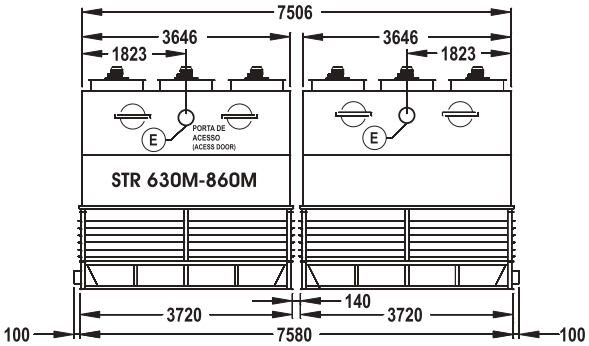


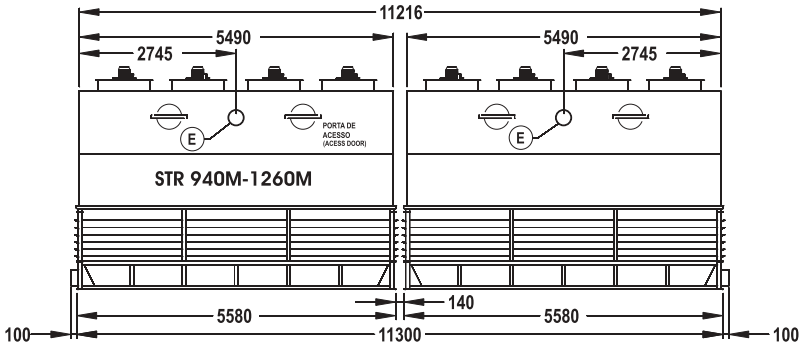
MODELO *MODEL*	PESO/*WEIGHT (kg)*		MOTOR VENT. *FAN MOTOR* (cv)	DIMENSÕES *DIMENSIONS* (mm)		ENTRADA DE ÁGUA "E" *WATER INLET* (pol)	SAÍDA DE ÁGUA "S" *WATER OUTLET* (pol)	REPOSIÇÃO "R" *MAKE-UP* (pol)	LADRÃO "L" *OVER FLOW* (pol)	DRENO "D" *DRAIN* (pol)	VOLUME DE ÁGUA NA BACIA (litros) *WATER BASIN VOLUME (liters)*
	EMBARQUE APROX. *APPROX. SHIPPING*	OPERAÇÃO APROX. *APPROX. OPERATION*		A	H						
STR-150	1378	3175	(4X) 2,0	2390	2865	6"	8"	2"	2"	2"	1720
STR-165	1378	3175	(4X) 2,0	2390	2865	6"	8"	2"	2"	2"	1720
STR-185	1498	3295	(4X)3,0	2690	3165	6"	8"	2"	2"	2"	1720
STR-215	1455	4353	(6X) 2,0	2090	2565	8"	8"	2"	2"	2"	2770
STR-240	1620	4518	(6X) 2,0	2390	2865	8"	8"	2"	2"	2"	2770
STR-265	1670	4568	(6X)2,0	2390	2865	8"	8"	2"	2"	2"	2770
STR-310	2125	5792	(8X) 2,0	2390	2865	8"	8"	2"	2"	2"	3530
STR-315	2125	5792	(8X) 2,0	2390	2865	8"	8"	2"	2"	2"	3530
STR-345	2125	5792	(8X) 2,0	2390	2865	8"	8"	2"	2"	2"	3530
STR-350	2125	5792	(8X) 2,0	2390	2865	8"	8"	2"	2"	2"	3530
STR-370	2337	6004	(8X) 3,0	2690	3165	8"	8"	2"	2"	2"	3530
STR-375	2337	6004	(8X) 3,0	2690	3165	8"	8"	2"	2"	2"	3530
STR-395	2337	6004	(8X) 3,0	2690	3165	8"	8"	2"	2"	2"	3530
STR-400	2500	6971	(10X) 2,0	2390	2865	8"	8"	2"	2"	2"	4270
STR-430	2700	7171	(10X) 3,0	2390	2865	8"	8"	2"	2"	2"	4270
STR-470	2750	7221	(10X) 3,0	2690	3165	8"	8"	2"	2"	2"	4270
STR-480	3240	9036	(12X) 2,0	2390	2865	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	5540
STR-510	3240	9036	(12X) 2,0	2390	2865	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	5540
STR-525	3340	9136	(12X) 2,0	2390	2865	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	5540
STR-535	3340	9136	(12X) 2,0	2390	2865	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	5540
STR-560	3827	11161	(16X) 2,0	2090	2565	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	7060
STR-600	3827	11161	(16X) 2,0	2090	2565	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	7060
STR-630	4250	11584	(16X) 2,0	2390	2865	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	7060
STR-700	4250	11584	(16X) 2,0	2390	2865	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	7060
STR-750	4673	12007	(16X) 3,0	2690	3165	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	7060
STR-800	5000	13942	(20X) 2,0	2390	2865	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	8540
STR-870	5400	14342	(20X) 3,0	2690	3165	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	8540
STR-945	5500	14442	(20X) 3,0	2690	3165	(2X) 8"	(2X) 8"	(2X) 2"	(2X) 2"	(2X) 2"	8540



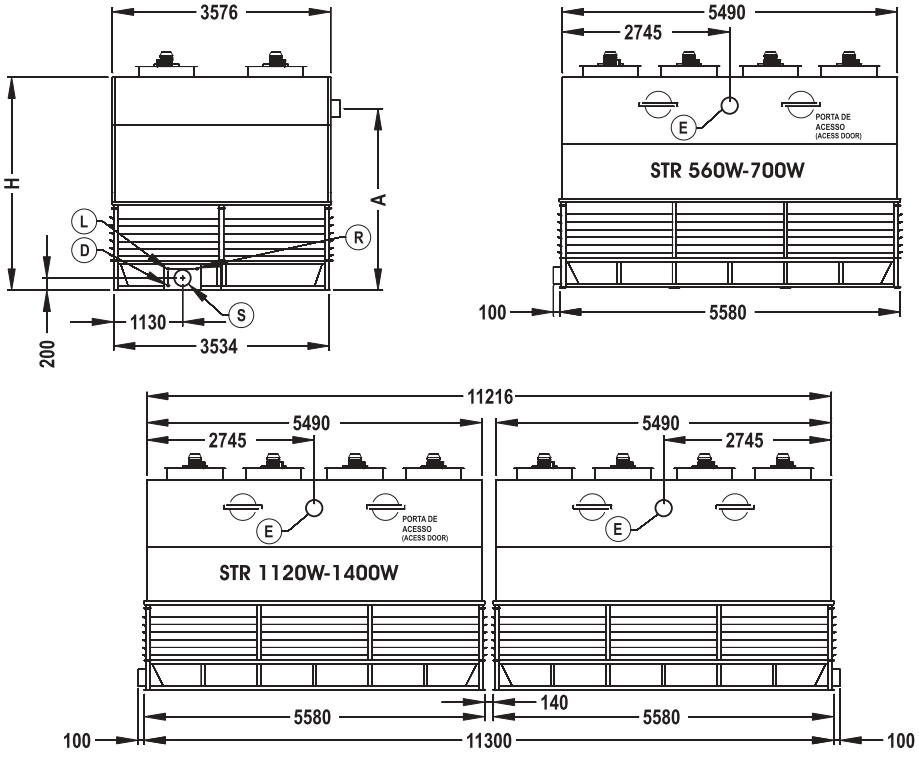








MODELO *MODEL*	PESO/*WEIGHT (kg)*		MOTOR VENT. *FAN MOTOR* (cv)	DIMENSÕES *DIMENSIONS* (mm)		ENTRADA DE ÁGUA "E" *WATER INLET* (pol)	SAÍDA DE ÁGUA "S" *WATER OUTLET* (pol)	REPOSIÇÃO "R" *MAKE-UP* (pol)	LADRÃO "L" *OVER FLOW* (pol)	DRENO "D" *DRAIN* (pol)	VOLUME DE ÁGUA NA BACIA (litros) *WATER BASIN VOLUME (liters)*
	EMBARQUE APROX. *APPROX. SHIPPING*	OPERAÇÃO APROX. *APPROX. OPERATION*		A	H						
STR-315M	2181	5902	(6X) 3,0	2390	2865	8"	8"	2"	2"	2"	3580
STR-345M	2181	5902	(6X) 3,0	2390	2865	8"	8"	2"	2"	2"	3580
STR-370M	2399	6120	(6X) 3,0	2690	3165	8"	8"	2"	2"	2"	3580
STR-400M	2399	6120	(6X) 4,0	2690	3165	8"	8"	2"	2"	2"	3580
STR-430M	2639	6360	(6X) 4,0	2990	3460	8"	8"	2"	2"	2"	3580
STR-470M	3251	9023	(8X) 3,0	2390	2865	10"	10"	2"	2"	2"	5520
STR-510M	3251	9023	(8X) 4,0	2390	2865	10"	10"	2"	2"	2"	5520
STR-525M	3575	9347	(8X) 4,0	2690	3165	10"	10"	2"	2"	2"	5520
STR-585M	3575	9347	(8X) 4,0	2690	3165	10"	10"	2"	2"	2"	5520
STR-635M	3933	9705	(8X) 5,0	2990	3460	10"	10"	2"	2"	2"	5520
STR-630M	4362	11804	(12X) 3,0	2390	2865	(2X) 8"	(2X) 8"	2"	2"	2"	7160
STR-690M	4362	11804	(12X) 3,0	2390	2865	(2X) 8"	(2X) 8"	2"	2"	2"	7160
STR-740M	4798	12240	(12X) 3,0	2690	3165	(2X) 8"	(2X) 8"	2"	2"	2"	7160
STR-800M	4798	12240	(12X) 4,0	2690	3165	(2X) 8"	(2X) 8"	2"	2"	2"	7160
STR-860M	5278	12720	(12X) 4,0	2990	3460	(2X) 8"	(2X) 8"	2"	2"	2"	7160
STR-940M	6502	18046	(16X) 3,0	2390	2865	(2X) 10"	(2X) 10"	2"	2"	2"	11040
STR-1020M	6502	18046	(16X) 4,0	2390	2865	(2X) 10"	(2X) 10"	2"	2"	2"	11040
STR-1050M	7150	18694	(16X) 4,0	2690	3165	(2X) 10"	(2X) 10"	2"	2"	2"	11040
STR-1170M	7150	18694	(16X) 4,0	2690	3165	(2X) 10"	(2X) 10"	2"	2"	2"	11040
STR-1260M	7865	19409	(16X) 5,0	2990	3460	(2X) 10"	(2X) 10"	2"	2"	2"	11040



MODELO *MODEL*	PESO/*WEIGHT (kg)*		MOTOR VENT. *FAN MOTOR* (cv)	DIMENSÕES *DIMENSIONS* (mm)		ENTRADA DE ÁGUA "E" *WATER INLET* (pol)	SAÍDA DE ÁGUA "S" *WATER OUTLET* (pol)	REPOSIÇÃO "R" *MAKE-UP* (pol)	LADRÃO "L" *OVER FLOW* (pol)	DRENO "D" *DRAIN* (pol)	VOLUME DE ÁGUA NA BACIA (litros) *WATER BASIN VOLUME (liters)*
	EMBARQUE APROX. *APPROX. SHIPPING*	OPERAÇÃO APROX. *APPROX. OPERATION*		A	H						
STR-560W	6107	13284	(8X) 4,0	2390	2865	10"	10"	2"	2"	2"	6820
STR-600W	6107	13284	(8X) 4,0	2390	2865	10"	10"	2"	2"	2"	6820
STR-670W	6717	13894	(8X) 5,0	2690	3165	10"	10"	2"	2"	2"	6820
STR-700W	7389	14566	(8X) 5,0	2990	3460	10"	10"	2"	2"	2"	6820
STR-1120W	13003	27357	(16X) 4,0	2390	2865	(2X) 10"	(2X) 10"	2"	2"	2"	13640
STR-1200W	13003	27357	(16X) 4,0	2390	2865	(2X) 10"	(2X) 10"	2"	2"	2"	13640
STR-1340W	14300	28654	(16X) 5,0	2690	3165	(2X) 10"	(2X) 10"	2"	2"	2"	13640
STR-1400W	14778	29132	(16X) 5,0	2990	3460	(2X) 10"	(2X) 10"	2"	2"	2"	13640

Detalhe Construtivo

1. O módulo superior deve incluir o enchimento em PVC ou grades de polipropileno instalado logo abaixo do sistema de distribuição tipo spray e todo este conjunto é enclausurado por painéis de aço zincado a quente com eliminadores de gotas removíveis no topo. O enchimento tipo filme é constituído de chapas corrugadas de PVC auto-extinguível com grau de propagação de chama igual a 25 de acordo com a Norma ASTM E-84 e os blocos de grade são de poplipropileno injetado.

2. Os ventiladores de fluxo axial são balanceados estaticamente e acoplados diretamente aos motores elétricos.

3. Os motores elétricos dos ventiladores são trifásicos, com proteção IP55 TFVE Classe F.

4. O sistema de distribuição de água é constituído por distribuidores e ramais de pulverização em tubos de PVC, com bicos plásticos de grande diâmetro do tipo anti-entupimento, permitindo um completo molhamento do enchimento sob quaisquer condições de operação. Os bicos, ramais de pulverização e distribuição são conectados por anéis de borracha que permitem uma fácil remoção para limpeza.

5. Os eliminadores em polipropileno separam de forma eficaz as gotas de água do fluxo de ar. O formato das lâminas na saída do ar aumenta a velocidade de descarga. Os conjuntos de eliminadores são montados em seções que facilmente podem ser retirados, permitindo acesso ao sistema de distribuição de água.

6. Um tanque de água em fibra de vidro e venezianas (PRFV), suportados por uma estrutura de aço galvanizado por imersão à quente após fabricado, com válvula bóia, dreno/ladrão e filtro de água. De fácil acesso para a inspeção e ajuste da válvula bóia para a remoção e limpeza dos filtros, bem como para a limpeza da bacia.

Construction Details

1. The upper section should include self-extinguishing PVC or polypropylene grade fill installed just below the spray type distribution system and the entire set is enclosed in hot dip galvanized steel panels with removable drift eliminators at the top. The film-type fill is made up of corrugated sheets of self-extinguishing PVC with a propagating flame level equal to 25, according to ASTM E-84 Standard and the grade blocks are made of injected polypropylene.

2. The axial flow fans are statically balanced and directly coupled to the electric motors.

3. The electric motors of the fans are three phase type with IP55 TEPC Class F protection.

4. The water distribution system is made up of headers and PVC tube spraying branches with large diameter anti-clog nozzles to ensure complete wetting of the fill under all operating conditions. The nozzles, spraying and distribution branches are connected by snapping rubber grommets that allow quick removal for cleaning.

5. The polypropylene drift eliminators efficiently separate the water droplets from the air flow. The shape of the blades at the air outlet increases discharge speed. The eliminator sets are mounted on sections that may easily be removed to allow access to the water distribution system.

6. A fiberglass (FRP) water tank and louvers are supported by a hot dip galvanized after fabrication steel structure, with a make-up drain/overflow valve and water strainer. It offers easy access for inspection and adjusting the make-up valve to remove and clean strainers as well as cleaning the basin.

Base de apoio

Para os modelos STR-65 a STR-1260M, o arranjo de suporte recomendado consiste em duas vigas "I" dispostas ao longo do comprimento da unidade. Para os modelos STR-560W a STR-1400W, deve-se acrescentar outra viga, com as mesmas dimensões, no centro do equipamento (vide figura abaixo). Além de oferecer apoio, as vigas também servem para levantar a unidade de qualquer fundação sólida que limite a movimentação ou dificulte o acesso à parte inferior da unidade. As vigas de aço devem ser colocadas diretamente embaixo da unidade e se estender ao longo do comprimento total da seção da bacia. As vigas "I", assim como os parafusos de ancoragem devem ser fornecidos e instalados por terceiros (cliente ou instalador). Peça um desenho certificado da Evapco para localização dos furos de ancoragem

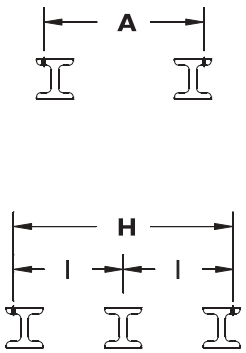
Tamanho e comprimento da viga
As dimensões das vigas "I" devem ser calculadas de acordo com a prática usual de cálculo de estruturas. Use 70% do peso da unidade em operação como carga uniformemente distribuída em cada viga O comprimento da viga deve ser no mínimo igual ao comprimento da bacia. Para unidades com bacia de concreto, esta deverá ser fornecida por terceiros e deverá estar lisa, plana e nivelada. Veja os dados técnicos e as dimensões das unidades na Tabela 1.

Support Base

The recommended support base for models STR-65 to STR-1260M consists of two "I" beams running the full length of the unit. For models STR-560W to STR-1400W an extra beam of the same size should be added at the center of the equipment (see illustration below). Besides offering support, the beams also serve to lift the unit from any solid foundation that restricts movement or makes access to the lower portion of the unit difficult. The steel beams should be placed directly under the unit and should run the full length of the basin section. The "I" beams, as well as the anchor bolts should be supplied and installed by third parties (client or installer). Contact Evapco to request a certified drawing to locate the anchoring holes.

Beam´s dimension
The dimension of the "I" beams should be calculated according to the usual practices for structural calculations. Use 70% of the unit´s operating weight, with the weight uniformly distributed on each beam. The beam length should be at least equal to the length of the basin. For units with concrete basins, these should be supplied by third parties and should be smooth, flat and leveled. See technical information and dimensions of the units in Table 1.

TORRE COM BACIA
COOLING TOWER WITH COLD WATER BASIN



TORRE SEM BACIA
BASINLESS COOLING TOWER

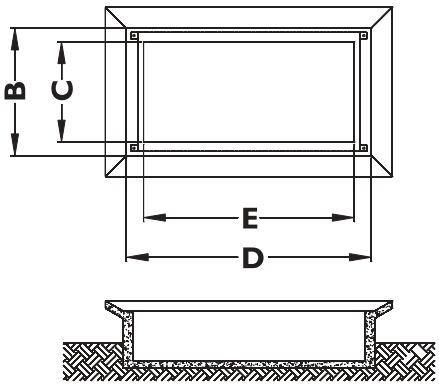


Tabela 01 / *Table 01*

MODELO/ *MODEL*	A	B	C	D	E	H	I
STR-65 a 95	1087	1320	920	2510	2110	n/a	n/a
STR-N105 a N150	1087	1320	920	3820	3420	n/a	n/a
STR-N165 a N185	1087	1320	920	4760	4360	n/a	n/a
STR-150 a 185	2237	2470	2070	2510	2110	n/a	n/a
STR-215 a 265	2237	2470	2070	3820	3420	n/a	n/a
STR-310 a 395	2237	2470	2070	4760	4360	n/a	n/a
STR-400 a 470	2237	2470	2070	6680	6280	n/a	n/a
STR-480 a 535	2237	2470	2070	7680	7280	n/a	n/a
STR-560 a 750	2237	2470	2070	9550	9150	n/a	n/a
STR-800 a 945	2237	2470	2070	11400	11000	n/a	n/a
STR-315M a 430M	2837	3070	2670	3820	3420	n/a	n/a
STR-470M a 635M	2837	3070	2670	6680	6280	n/a	n/a
STR-630M a 860M	2837	3070	2670	7680	7280	n/a	n/a
STR-940M a 1260M	2837	3070	2670	11400	11000	n/a	n/a
STR-560W a 700W	n/a	3700	3300	6680	6280	3464	1732
STR-1120W a 1340W	n/a	3700	3300	11400	11000	3464	1732

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Representante/ *Representative*:

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