NihonSpindle

Leading Eco-Technology

UX Series

• Standard • Low Noise • Super Low Noise

Open Circuit Induced Draft Crossflow Type Cooling Tower

www.spindle.com.my

Contents

Nihon Spindle UX Series

Product Overview

- Open Circuit & Induced Draft
- Crossflow Technology & Maintenance Friendly
- Moduler System & Multiple Cell Configuration
- Gravity Flow & Nozzle Free Water Distribution System
- High Efficiency Fills with Low Drift Technology and Adhesive-Free
- Energy Efficiency[(1)] from as low as 0.010kW per m^3/ hour
- Product Footprint[(2)] from as low as 0.026m^2 per m^3/ hour
- Thermal Performance Rating for single and multiple cell configurations in accordance to JIS B8609 standards by Japan CoolingTower Institute (JCI)
- Design & Manufacturing Standards certified by Japan CoolingTower Institute (JCI) in accordance to Japan Industrial Standards (JIS)

Notes (1) & (2): Data based on inlet temperature 37.0°C, outlet temperature 32.0°C and ambient wetbulb temperature 27.0°C as per JCI standard.

A Trusted Global Brand

Nihon Spindle is one of the many accomplished brands acquired by Sumitomo Heavy Industries Limited, which forms part of the largest Japanesekeiretsu famously known as Sumitomo Group.

Founded in 1918, Nihon Spindle excelled in the field of cooling tower developments for over 50 years and we continue to lead a new field of eco-technologies as a pioneer in high efficiency cooling towers. In-house research & development programs conducted at multiple test facilities in Nihon Spindle plants across Asia Pacific has contributed to the successful creation of a new breed of cooling towes that consume less energy with minimal water losses, the ideal eco-friendly solution for our end user.

A Successful History

1918	Nihon Spindle Manufacturing was founded in Osaka (Japan) as a limited partnership, producing spindles and key components for textile machines
1961	Nihon Spindle Manufacturing commenced full production and distribution of cooling towers
1972	Nihon Spindle Manufacturing developed its first FRP Cold Water Basin
1980	Nihon Spindle Manufacturing developed Low Noise technology in accordane to JCI standards
1983	The first cooling tower sold in Malaysia through Sumitomo Corporation
1985	Nihon Spindle Manufacturing developed Super Low Noise technology in accordance to JCI standards
1986	Distribution and manufacturing rights for UN series cooling towers granted to Linear Group Malaysia
1995	Dalian Spindle Cooling Towers Co. Ltd established in Dalian, China
2007	NS Cooling Towers Sdn Bhd established by Nihon Spindle Manufacturing as its third worldwide manufacturing plant in August as the main support hub for Malaysia and other worldwide markets except China and Japan
2008	Nihon Spindle Manufacturing launched WA & KX series cooling towers, thermal performance rated and certified by CTI
2009	NS Cooling Towers Sdn Bhd renamed to Nihon Spindle Cooling Towers Sdn Bhd in November
2012	Nihon Spindle Manufacturing launched JS series cooling towers, a new line of cooling towers with improved energy efficieny
2013	Nihon Spindle Manufacturing launched KG series cooling towers with premium energy efficiency, thermal performance rated and certified by CTI
2014	Nihon Spindle Manufacturing launched JK series cooling towers with improved energy efficiency and thermal performance
2015	Nihon Spindle Manufacturing launched UX series cooling towers with improved energy efficiency and thermal performance

Our Dedicated Team

With high-tech manufacturing plants at multiple locations across Asia Pacific, Nihon Spindle carefully deploys its team of expertise to ensure all manufacturing and quality standards are stringently adhered to at all times, both internally within Nihon Spindle plants and externally through its approved vendors for each plant. The highly competent professionals of Nihon Spindle Japan have been specifically appointed to manage important areas including manufacturing and assembly process, engineering and in-house R&D, material procurement, vendor audit, quality assurance and quality control. Working as a team with the local expertise of each plant, we are confidently proud of every Nihon Spindle product delivered worldwide.

Field Proven Quality & Reliability

Nihon Spindle products are certified by Japan Cooling Tower Institute (JCI) in accordance to Japanese Industrial Standards (JIS). These standards are strictly applied over a wide range of areas including product and component design, material selection and manufacturing process, test procedure and methodology, lifecycle and maintenance protocol, water quality standards. Nihon Spindle employs a team of in-house auditors at each plant as part of its quality control to strictly audit each Nihon Spindle plant and its corresponding approved vendors. Our in-house auditors shall ensure all components and supplies are manufactured to Japan Industrial Standards (JIS), subsequently ensuring a longer product lifespan and greater product reliability to our end users.

Research and Development Centre

As a testament to our long term commitment in the field of cooling tower development, Nihon Spindle contributes direct investment into each manufacturing plant across Asia Pacific. Our manufacturing plant in Malaysia include multiple test facilities that function as part of the quality control requirements, as well as to execute long term research and development programs for technological innovations. Our facility includes the first Cooling Tower Thermal Performance Test Platform in Malaysia, designed and built by then CTI tester Mr. Terry Watt in 1996. This test platform combined with a dedicated test office covers a total floor space of 15,000 square feet with digital thermocouple sensors embedded at multiple locations along the piping system, complex array of variable pumps and diesel boilers to simulate specific operating conditions and highly accurate data acquisition sensors such as in-line flow meters, motorized psychrometers and outdoor wind sensors. Other facilities built specifically for in-process quality controls include static fan balancing, dynamic fan balancing, multiple axis vibration test, motor test, basin leak tests etc.

Japan Cooling Tower Institute

The Japan Cooling Tower Institute (JCI) was established in 1963 for the purpose of improving the quality of cooling towers through vast research programs specifically in the field of technical and manufacturing aspects of cooling towers. The institute conveniently serves as a third party independent source to provide non-bias and up-to-date information to the public for over 5 decades.

Established over 50 years ago, the Japan Cooling Tower Institute produced numerous standards and test codes to ensure its participating members deliver the highest quality standards and product performance. Amongst the many publications released, the following standards and codes have been applied to cooling tower manufacturers.

Refrigeration Ton (RT) by the Japan Cooling Tower Institute (JCI)

RT is the standard unit of measurement associated with cooling tower capacity and is defined by the Japan Cooling Institute. 1RT is equivalent to specific heat rejection quantity necessary in order to reduce fluid temperature from 37°C to 32°C at a circulating fluid flowrate of 0.78 cubic meters per hour and ambient wet bulb temperature of 27°C. For more information, please visit *http://www.coolingtower.jp/*

Water Quality Standards by Japan Refrigeration and Air Conditioning Industry Association (JRAIA)

Water is one of the key elements present in all open circuit type cooling towers. This precious element flows through all intended heat transfer surfaces of a cooling tower. In other words, the construction and thermal efficiencies of a cooling tower can be affected in the presence of poor water quality.

The Japan Cooling Tower Institute identified the importance of good water quality and has specified the water quality standards by JRAIA to all its participating members.

For more information on JRAIA standards, please visit *http://www.jraia.or.jp/english/*

1964	Cooling Tower Terminology and Performance Standards for Cooling Towers for Air Conditioning
1966	Standards for Cooling Towers for Air Conditioning
1973	Sound Level Measurement Standards for Cooling Towers
1978	Sound Level Standards for Cooling Towers: Centrifugal Water Chillers-Low-Sound Type
1979	Sound Level Standards for Cooling Towers: Centrifugal Water Chillers-Ultra Low-Sound Type
1981	Seismic Resistance Design and Construction Standards
1984	Daily Checklist and Emergency Checklist for Cooling Towers
1989	Sound Level Standards for Cooling Towers: Double Effect Type Absorption Chillers-Low-Sound and Ultra Low-Sound Types
1991	Sound Level Standards for Cooling Towers: Centrifugal Water Chillers-Low-Sound and Ultra Low-Sound Types Revised Sound Level Standards for Cooling Towers: Double Effect Type Absorption Chillers-Low-Sound and Ultra Low-Sound Types
1994	Criteria and Testing of Corrosion Proof for Cooling Towers against Salty Air
2005	Basic Specifications for Vapor Plume Abatement Cooling Towers Cooling Tower Maintenance and Service Life
2008	Performance Tests for Mechanical Draft Cooling Towers: JIS B 8609
2010	Sound Level Standards for Closed Circuit Cooling Towers Revised Criteria of Corrosion Proof for Cooling Towers against Salty Air Thermal Performance Tests for Mechanical Draft Cooling Towers
2011	Revised Sound Level Standards for Open Circuit Cooling Towers Revised Sound Level Standards for Closed Circuit Cooling Towers

Standard Features

Crossflow Technology

Introduced in the 1960s, crossflow technology provided countless advantages over conventional counterflow technology. A void section inside crossflow cooling towers allow instant and tool-free access to the internals of each cooling tower. This feature enables periodic maintenance and inspection on critical components such as fills, drive system and piping array to be conducted safely with ease, reducing downtime and maintenance cost. A perforated maintenance walkway runs internally between each endwall, serving as a dry platform for technicians to conduct routine works safely with ease. A properly maintained cooling tower will consistently deliver higher thermal performances over a poorly maintained cooling tower. With over 50 years of research in the field of crossflow technology, Nihon Spindle successfully developed its largest single-cell capacity crossflow cooling tower, delivering over 1,500RT in accordance to JIS B8609 standards by Japan Cooling Tower Institute (JCI).

High Efficiency Fills and Low Drift Technology

Fills are essentially the beating heart of all cooling towers with evaporative cooling technology. Nihon Spindle is proud to be one of the few manufacturers worldwide that has ventured into the engineering of fill technology since 1960s. Our vast experience through decades of research in fill engineering enabled the creation of high efficiency fills with maximum thermal performance. Our latest fill technology incorporates unique studs to interlock fill sheets without adhesives, simplifying field works and improved fill cleaning for extended lifecycle and consistent reliability. In addition, the integration of drift eliminators onto Nihon Spindle fill technology ensure minimal water drift loss to prevent legionella's disease and enhanced water conservation. Technological features above have been developed by Nihon Spindle R&D team in part to exercise its social responsibility for a healthier and greener future.

Gravity Flow Water Distribution System

Our unique distribution system is designed to evenly deliver hot water by natural gravity flow across the fill section without nozzle sprays or grommets. The elimination of nozzle sprays and grommets ensure choke-free water flow at all times, while the absence of nozzle sprays allow for water flow by natural gravity or zero energy flow without additional pumping requirements. In addition, the absence of nozzle sprays and grommets completely eliminates any replacement cost of such parts. Nihon Spindle distribution system is a proprietary technology designed specifically for the use with Nihon Spindle fills. Nihon Spindle gravity flow distribution systems have been field proven successfully since 1960s with continuous refinement over the years through technological advancement and complex engineering secrets of Nihon Spindle R&D team.

Standard Features

Heavy Duty Framework

Robust structures provide excellent support to all areas and additionally strengthened at critical areas, i.e. cold water basin, mechanical skid, fill section, distribution basin etc. All structures are hot dipped zinc galvanized for superior rust protection and longevity.

Energy Efficient Axial Fans

Fans with lightweight aluminum alloy airfoil blades and adjustable pitch are housed inside fan cylinders to increase fan efficiency, reduce shaft power and maximize containment protection. Fan cylinders are constructed from UV retardant fiberglass reinforced polyester (FRP) for rust proof and longevity.

Maintenance Walkway

Perforated to eliminate water patches and promote non-skid surface. Walkway is elevated above basin water level to provide safe platform for maintenance and inspection works. Entire assembly is hot dipped zinc galvanized for superior rust protection and longevity.

Oversized Access Door

Opening area exceeding 1,200mm by 530mm for safer egress and ingress, each door is securely hinged onto a door frame. Door and door frame constructed from UV retardant fiberglass reinforced polyester (FRP).

Rigid Mechanical Skid

Mechanical skid is equipped with a 3-axis adjustable motor base to facilitate and simplify belt tension and pulley alignment services. Entire assembly is hot dipped zinc galvanized for superior rust protection and longevity.

FRP Casing Panels

Constructed from UV retardant fiberglass reinforced polyester (FRP), panels are chemically inert and rust proof for longevity. Corrugated panels are provided as standard and molded panels are available as option.

Fan Bearing Assembly

Cast iron enclosure provides maximum protection to the drive shaft, another critical component of the drive system. Cast iron enclosure is hot dipped zinc galvanized for superior rust protection and longevity. Lubrication line constructed from copper tubes extend from fan bearing assembly to adjacent column, reachable by hand to simplify lubrication service for all fan bearings.

Sloping Cold Water Basin

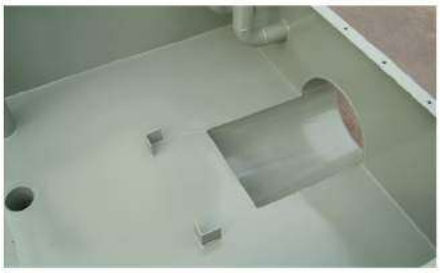
Designed with a natural gradient that slopes towards the center of the cold water basin, promoting natural water flow towards the center of the cold water basin for simplified cleaning services. Constructed from UV retardant fiberglass reinforced polyester (FRP) for rust proof and longevity, supported from beneath with hot dipped zinc galvanized structural framework.

Outlet Sump

Water depth increased at outlet area prevents entrapment of air pockets in the piping system, significantly reduces air locks in the pumps. Equipped with a side-stream horizontal outlet, this eliminates the need for an elbow pipe, simplifies piping connection works and overall field costs. All models except JKMx-C3xxx and JKMx-D3xxx include this as a standard feature.

Optional Features

Rust Protection



For installations that require additional protection against corrosion, epoxy powder coating can be applied onto the standard hot dipped galvanized steel (HDGS) parts as a secondary protection. Other optional materials include stainless steel 304 and 316 grades.

Vibration Switch

Design specifically to safeguard the drive system of each cooling tower. In the event of excessive vibrations detected at the motor or fan unit, this option automatically disrupts the power supply to the motor unit and prevents consequential damages to the tower.

Extended Discharge Hood

An efficient and cost effective way to divert discharge air wherever necessary. Constructed entirely of UV retardant Fibreglass Reinforced Polyester (FRP), this option is designed specifically for Nihon Spindle fan cylinders. Available at multiple heights, straight or elbow type.

Vibration Isolator

Installed at specific points of the cooling tower base, this option provides an effective way to isolate vibrations generated from the cooling tower. Available at various deflection rates and color coded to the rated load.

Safety Railing Set

Complete with hand & knee railings, toe guards along the upper perimeter and ladder cage, this option provides a safer workspace at high elevation of each cooling tower top deck.

Distribution Basin Cover

Constructed of UV retardant Fibreglass Reinforced Polyester (FRP), this option protects the distribution basins against harmful UV rays. The tool-free and removable covers can withstand up to a maximum load of 180kg/m2.

Motor Efficiency

Totally Enclosed Air Over (TEAO) motors are designed specifically for in-stream operations, utilises discharge air to cool the motor and mounted inside cooling tower for noise and vibration reduction. Available in IE2 (High Efficiency) & IE3 (Premium Efficiency), rated to IEC 60034-30 & NEMA standards, custom voltage, frequency and ingress protection class.

Mechanical Gear Drive

Right angle speed reduction gears are recommended for cooling towers subject to extended operational hours. This option provides enhanced reliability and minimal downtime, rated in accordance with American Gear Manufacturers Association (AGMA) and Cooling Technology Institute (CTI) Standards.

Multi Cell Configuration

Our cooling towers are designed specifically for modular connectivity. Single cell towers can be easily joint to supply multi-cell capacities, minimizing overall footprint. Multi-cell towers are equipped with a continuous walkway from 1 end to the other. Options available for multi-cell towers include common or individual type basin, half or full height internal partitions.

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Selection Table: Standard Models

Model	Overall Dimension & Motor				Circulating Water Flowrate (USGPM)								
	Width	Length	Height	Motor	95 / 85	97 / 87	100 / 90	95 / 85	97 / 87	100 / 90	100 / 90	105 / 95	105 / 90
	(mm)	(mm)	(mm)	(kW)	78 °F			81.5 °F			85 °F		
UXN-Q1AS1	1,750	3,585	2,880	1.5	306	375	460	224	295	386	300	477	256
UXN-Q1BS1	1,750	3,585	2,880	2.2	347	425	521	253	334	437	339	540	290
UXN-Q1CS1	1,750	3,585	2,880	3.7	415	508	623	303	400	522	406	645	347
UXN-Q1DS1	1,750	3,585	2,880	5.5	477	583	644	348	459	600	466	★	398
UXN-Q1ES1	1,750	3,585	2,880	7.5	505	★	★	368	486	★	494	★	422
UXN-R1AS1	1,850	3,685	2,880	1.5	326	399	489	238	314	410	319	507	272
UXN-R1BS1	1,850	3,685	2,880	2.2	369	452	554	269	355	465	361	574	308
UXN-R1CS1	1,850	3,685	2,880	3.7	441	540	663	322	425	556	432	687	369
UXN-R1DS1	1,850	3,685	2,880	5.5	508	621	680	370	489	639	497	★	424
UXN-R1ES1	1,850	3,685	2,880	7.5	535	★	★	391	516	★	524	★	447
UXN-A1AS1	2,050	3,785	2,880	1.5	366	448	549	267	352	460	358	569	306
UXN-A1BS1	2,050	3,785	2,880	2.2	414	507	622	302	399	522	405	645	346
UXN-A1CS1	2,050	3,785	2,880	3.7	496	607	745	362	478	625	486	772	415
UXN-A1DS1	2,050	3,785	2,880	5.5	572	700	★	417	551	720	560	★	478
UXN-A1ES1	2,050	3,785	2,880	7.5	598	★	★	437	576	★	585	★	500
UXN-B1AS1	2,250	3,985	2,880	1.5	395	483	593	288	380	497	386	614	330
UXN-B1BS1	2,250	3,985	2,880	2.2	447	548	672	327	431	563	438	696	374
UXN-B1CS1	2,250	3,985	2,880	3.7	535	655	804	391	516	674	524	833	447
UXN-B1DS1	2,250	3,985	2,880	5.5	616	754	867	450	593	775	603	867	515
UXN-B1ES1	2,250	3,985	2,880	7.5	660	★	★	482	636	★	646	★	552
UXN-B2AS1	2,250	4,020	3,080	1.5	415	508	623	303	400	523	406	646	347
UXN-B2BS1	2,250	4,020	3,080	2.2	469	574	704	342	452	590	459	729	392
UXN-B2CS1	2,250	4,020	3,080	3.7	560	685	840	409	539	704	548	871	468
UXN-B2DS1	2,250	4,020	3,080	5.5	643	787	884	469	619	809	629	884	537
UXN-B2ES1	2,250	4,020	3,080	7.5	717	★	★	523	690	★	702	★	599
UXN-B3BS1	2,250	4,089	3,475	2.2	508	621	762	371	489	639	497	789	424
UXN-B3CS1	2,250	4,089	3,475	3.7	602	737	884	440	580	758	590	884	504
UXN-B3DS1	2,250	4,089	3,475	5.5	689	842	★	503	663	866	674	★	576
UXN-B3ES1	2,250	4,089	3,475	7.5	766	884	★	560	738	884	750	★	641
UXN-B3FS1	2,250	4,089	3,475	11.0	★	★	★	640	★	★	★	★	696
UXN-B4CS1	2,250	4,162	3,890	3.7	638	781	884	466	615	803	625	884	534
UXN-B4DS1	2,250	4,162	3,890	5.5	728	884	★	532	701	884	712	★	609
UXN-B4ES1	2,250	4,162	3,890	7.5	810	★	★	592	780	★	793	★	678
UXN-B4FS1	2,250	4,162	3,890	11.0	847	★	★	675	847	★	847	★	773
UXN-B4GS1	2,250	4,162	3,890	15.0	★	★	★	706	★	★	★	★	★
UXN-C1AS1	2,350	4,085	2,880	1.5	417	510	626	304	401	524	408	648	348
UXN-C1BS1	2,350	4,085	2,880	2.2	472	578	709	344	454	594	462	734	394
UXN-C1CS1	2,350	4,085	2,880	3.7	566	693	850	413	545	712	554	880	473
UXN-C1DS1	2,350	4,085	2,880	5.5	654	800	883	477	630	823	640	883	546
UXN-C1ES1	2,350	4,085	2,880	7.5	692	★	★	505	666	★	677	★	578
UXN-C2AS1	2,350	4,120	3,080	1.5	440	538	660	321	423	553	430	684	367
UXN-C2BS1	2,350	4,120	3,080	2.2	497	608	746	363	478	625	486	772	415
UXN-C2CS1	2,350	4,120	3,080	3.7	593	726	890	433	571	746	580	922	496
UXN-C2DS1	2,350	4,120	3,080	5.5	684	837	925	500	659	861	670	925	572

★ Kindly Refer To Manufacturer Or Representative For Additional Information.

Fan V Belt

Standard HDGS Pipes Fitting

Selection Table: Standard Models

Model	Overall Dimension & Motor				Circulating Water Flowrate (USGPM)								
	Width	Length	Height	Motor	95 / 85	97 / 87	100 / 90	95 / 85	97 / 87	100 / 90	100 / 90	105 / 95	105 / 90
	(mm)	(mm)	(mm)	(kW)	78 °F			81.5 °F			85 °F		
UXN-C2ES1	2,350	4,120	3,080	7.5	748	★	★	561	740	★	748	★	642
UXN-C3BS1	2,350	4,192	3,475	2.2	541	661	811	395	521	680	529	841	452
UXN-C3CS1	2,350	4,192	3,475	3.7	642	786	925	469	619	808	629	925	537
UXN-C3DS1	2,350	4,192	3,475	5.5	739	904	★	539	712	925	723	★	618
UXN-C3ES1	2,350	4,192	3,475	7.5	826	921	★	603	795	★	808	★	691
UXN-C3FS1	2,350	4,192	3,475	11.0	★	★	★	670	★	★	★	★	729
UXN-C4CS1	2,350	4,262	3,890	3.7	684	836	925	500	659	860	669	925	572
UXN-C4DS1	2,350	4,262	3,890	5.5	784	925	★	573	755	925	767	★	656
UXN-C4ES1	2,350	4,262	3,890	7.5	870	★	★	636	839	★	852	★	728
UXN-C4FS1	2,350	4,262	3,890	11.0	★	★	★	730	★	★	★	★	830
UXN-C4GS1	2,350	4,262	3,890	15.0	★	★	★	739	★	★	★	★	★
UXN-D3BS1	2,750	4,492	3,540	2.2	614	751	921	448	591	772	601	954	513
UXN-D3CS1	2,750	4,492	3,540	3.7	726	888	1,090	530	699	913	711	1,093	607
UXN-D3DS1	2,750	4,492	3,540	5.5	833	1,019	1,093	608	802	1,048	815	★	696
UXN-D3ES1	2,750	4,492	3,540	7.5	931	1,093	★	680	897	1,093	912	★	779
UXN-D3FS1	2,750	4,492	3,540	11.0	★	★	★	785	★	★	★	★	877
UXN-D4CS1	2,750	4,562	3,940	3.7	776	949	1,093	567	747	976	759	1,093	649
UXN-D4DS1	2,750	4,562	3,940	5.5	887	1,085	★	648	854	1,093	868	★	742
UXN-D4ES1	2,750	4,562	3,940	7.5	990	1,093	★	723	954	★	969	★	828
UXN-D4FS1	2,750	4,562	3,940	11.0	1,058	★	★	830	1,058	★	1,058	★	950
UXN-D4GS1	2,750	4,562	3,940	15.0	★	★	★	872	★	★	★	★	★
UXN-E3CS1	3,050	4,792	3,540	3.7	764	935	1,146	558	736	961	748	1,188	639
UXN-E3DS1	3,050	4,792	3,540	5.5	874	1,069	1,218	638	841	1,099	855	1,218	731
UXN-E3ES1	3,050	4,792	3,540	7.5	975	1,192	★	712	939	1,218	954	★	815
UXN-E3FS1	3,050	4,792	3,540	11.0	1,118	★	★	816	1,077	★	1,094	★	935
UXN-E3GS1	3,050	4,792	3,540	15.0	★	★	★	882	★	★	★	★	958
UXN-E4CS1	3,050	4,862	3,940	3.7	814	996	1,218	595	784	1,024	797	1,218	681
UXN-E4DS1	3,050	4,862	3,940	5.5	928	1,136	★	678	894	1,168	909	★	777
UXN-E4ES1	3,050	4,862	3,940	7.5	1,033	1,218	★	755	995	1,218	1,011	★	864
UXN-E4FS1	3,050	4,862	3,940	11.0	1,181	★	★	863	1,138	★	1,156	★	988
UXN-E4GS1	3,050	4,862	3,940	15.0	★	★	★	962	★	★	★	★	1,089
UXN-E4HS1	3,050	4,862	3,940	18.5	★	★	★	972	★	★	★	★	★
UXN-F3CS1	3,450	5,092	3,540	3.7	849	1,039	1,274	620	818	1,068	831	1,320	710
UXN-F3DS1	3,450	5,092	3,540	5.5	969	1,185	1,385	708	933	1,219	948	1,385	810
UXN-F3ES1	3,450	5,092	3,540	7.5	1,082	1,323	★	790	1,042	1,361	1,059	★	905
UXN-F3FS1	3,450	5,092	3,540	11.0	1,241	1,366	★	907	1,196	1,366	1,215	★	1,038
UXN-F3GS1	3,450	5,092	3,540	15.0	★	★	★	1,003	★	★	★	★	1,089
UXN-F4CS1	3,450	5,162	3,940	3.7	940	1,150	1,385	687	905	1,182	920	1,385	786
UXN-F4DS1	3,450	5,162	3,940	5.5	1,074	1,314	★	785	1,035	1,351	1,051	★	899
UXN-F4ES1	3,450	5,162	3,940	7.5	1,197	1,385	★	875	1,153	1,385	1,172	★	1,002
UXN-F4FS1	3,450	5,162	3,940	11.0	1,375	★	★	1,005	1,325	★	1,346	★	1,151
UXN-F4GS1	3,450	5,162	3,940	15.0	★	★	★	1,127	★	★	★	★	1,158
UXN-F4HS1	3,450	5,162	3,940	18.5	★	★	★	★	★	★	★	★	★

★ Kindly Refer To Manufacturer Or Representative For Additional Information.

Solid Brass Float Valve
For Automatic Make Up

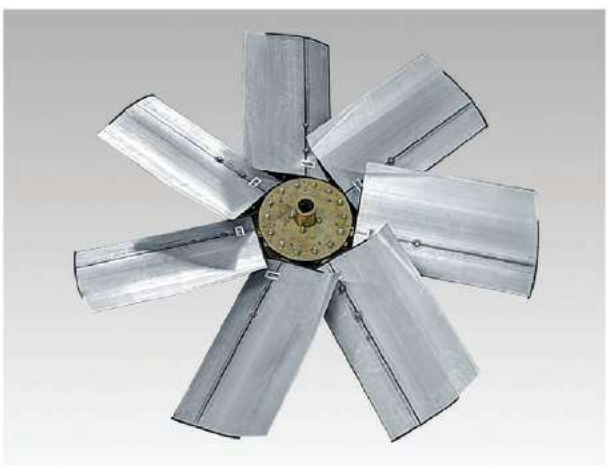
Single Piece Cold Water Basin Design

NihonSpindle
Leading Eco-Technology

Selection Table: Low Noise Models

Model	Overall Dimension & Motor				Circulating Water Flowrate (USGPM)								
	Width	Length	Height	Motor	95 / 85	97 / 87	100 / 90	95 / 85	97 / 87	100 / 90	100 / 90	105 / 95	105 / 90
	(mm)	(mm)	(mm)	(kW)	78 °F			81.5 °F			85 °F		
UXL-Q1AS1	1,750	3,585	2,880	1.5	306	375	460	224	295	386	300	477	256
UXL-Q1BS1	1,750	3,585	2,880	2.2	346	424	520	253	333	436	339	538	289
UXL-Q1CS1	1,750	3,585	2,880	3.7	412	504	618	301	397	518	403	641	344
UXL-Q1DS1	1,750	3,585	2,880	5.5	474	580	653	346	456	596	463	653	396
UXL-Q1ES1	1,750	3,585	2,880	7.5	505	★	★	368	486	★	494	★	422
UXL-R1AS1	1,850	3,685	2,880	1.5	326	399	489	238	314	410	319	507	272
UXL-R1BS1	1,850	3,685	2,880	2.2	367	450	552	268	354	462	359	572	307
UXL-R1CS1	1,850	3,685	2,880	3.7	437	535	657	319	421	551	428	681	366
UXL-R1DS1	1,850	3,685	2,880	5.5	503	615	694	367	484	633	492	694	420
UXL-R1ES1	1,850	3,685	2,880	7.5	535	★	★	391	516	★	524	★	447
UXL-A1AS1	2,050	3,785	2,880	1.5	366	448	549	267	352	460	358	569	306
UXL-A1BS1	2,050	3,785	2,880	2.2	413	506	620	301	398	520	404	643	345
UXL-A1CS1	2,050	3,785	2,880	3.7	492	603	739	359	474	620	482	766	411
UXL-A1DS1	2,050	3,785	2,880	5.5	566	693	760	413	545	713	554	★	473
UXL-A1ES1	2,050	3,785	2,880	7.5	598	★	★	437	576	★	585	★	500
UXL-B1AS1	2,250	3,985	2,880	1.5	395	483	593	288	380	497	386	614	330
UXL-B1BS1	2,250	3,985	2,880	2.2	447	547	671	326	431	563	437	695	374
UXL-B1CS1	2,250	3,985	2,880	3.7	532	651	799	388	512	669	520	828	445
UXL-B1DS1	2,250	3,985	2,880	5.5	611	747	882	446	588	769	598	882	510
UXL-B1ES1	2,250	3,985	2,880	7.5	660	★	★	482	636	★	646	★	552
UXL-B2AS1	2,250	4,020	3,080	1.5	415	508	623	303	400	523	406	646	347
UXL-B2BS1	2,250	4,020	3,080	2.2	469	574	704	342	452	590	459	729	392
UXL-B2CS1	2,250	4,020	3,080	3.7	557	681	836	406	536	701	545	866	465
UXL-B2DS1	2,250	4,020	3,080	5.5	637	779	884	465	613	801	623	884	532
UXL-B2ES1	2,250	4,020	3,080	7.5	713	★	★	521	687	★	698	★	596
UXL-B3BS1	2,250	4,089	3,475	2.2	508	622	762	371	489	639	497	790	425
UXL-B3CS1	2,250	4,089	3,475	3.7	600	734	884	438	578	755	587	884	502
UXL-B3DS1	2,250	4,089	3,475	5.5	686	840	★	501	661	864	672	★	574
UXL-B3ES1	2,250	4,089	3,475	7.5	762	884	★	556	734	884	746	★	637
UXL-B3FS1	2,250	4,089	3,475	11.0	★	★	★	639	★	★	★	★	697
UXL-B4CS1	2,250	4,162	3,890	3.7	636	778	884	465	613	800	623	884	532
UXL-B4DS1	2,250	4,162	3,890	5.5	726	884	★	530	699	884	710	★	607
UXL-B4ES1	2,250	4,162	3,890	7.5	805	★	★	588	776	★	788	★	674
UXL-B4FS1	2,250	4,162	3,890	11.0	850	★	★	673	850	★	850	★	771
UXL-B4GS1	2,250	4,162	3,890	15.0	★	★	★	706	★	★	★	★	★
UXL-C1AS1	2,350	4,085	2,880	1.5	417	510	626	304	401	524	408	648	348
UXL-C1BS1	2,350	4,085	2,880	2.2	471	577	708	344	454	593	461	733	394
UXL-C1CS1	2,350	4,085	2,880	3.7	565	692	849	413	545	712	553	880	473
UXL-C1DS1	2,350	4,085	2,880	5.5	647	792	902	472	623	815	633	902	541
UXL-C1ES1	2,350	4,085	2,880	7.5	692	★	★	505	666	★	677	★	578
UXL-C2AS1	2,350	4,120	3,080	1.5	440	538	660	321	423	553	430	684	367
UXL-C2BS1	2,350	4,120	3,080	2.2	496	607	745	362	478	624	486	772	415
UXL-C2CS1	2,350	4,120	3,080	3.7	592	725	889	432	571	745	580	921	495
UXL-C2DS1	2,350	4,120	3,080	5.5	677	829	925	494	652	852	663	925	566
UXL-C2ES1	2,350	4,120	3,080	7.5	756	★	★	552	729	★	740	★	632

★ Kindly Refer To Manufacturer Or Representative For Additional Information.



Aerofoil Axial Flow Type Fan: Aluminium Blades for selected UXS Series

Aerofoil Axial Flow Type Fan: Aluminium Blades for selected UXL Series

Selection Table: Low Noise Models

Model	Overall Dimension & Motor				Circulating Water Flowrate (USGPM)								
	Width	Length	Height	Motor	95 / 85	97 / 87	100 / 90	95 / 85	97 / 87	100 / 90	100 / 90	105 / 95	105 / 90
	(mm)	(mm)	(mm)	(kW)	78 °F			81.5 °F			85 °F		
UXL-C3BS1	2,350	4,192	3,475	2.2	541	662	812	395	521	681	530	841	452
UXL-C3CS1	2,350	4,192	3,475	3.7	642	785	925	469	618	807	628	925	537
UXL-C3DS1	2,350	4,192	3,475	5.5	733	897	★	535	706	922	717	★	613
UXL-C3ES1	2,350	4,192	3,475	7.5	815	925	★	595	785	925	798	★	682
UXL-C3FS1	2,350	4,192	3,475	11.0	★	★	★	670	★	★	★	★	729
UXL-C4CS1	2,350	4,262	3,890	3.7	683	835	925	499	658	859	668	925	571
UXL-C4DS1	2,350	4,262	3,890	5.5	778	925	★	569	750	925	762	★	651
UXL-C4ES1	2,350	4,262	3,890	7.5	865	★	★	632	834	★	847	★	724
UXL-C4FS1	2,350	4,262	3,890	11.0	★	★	★	725	841	★	★	★	831
UXL-C4GS1	2,350	4,262	3,890	15.0	★	★	★	739	★	★	★	★	★
UXL-D3BS1	2,750	4,492	3,540	2.2	614	751	921	448	591	772	601	954	513
UXL-D3CS1	2,750	4,492	3,540	3.7	726	888	1,089	530	699	913	710	1,093	607
UXL-D3DS1	2,750	4,492	3,540	5.5	830	1,016	1,093	606	800	1,044	812	★	694
UXL-D3ES1	2,750	4,492	3,540	7.5	926	1,093	★	676	892	1,093	907	★	775
UXL-D3FS1	2,750	4,492	3,540	11.0	★	★	★	772	914	★	914	★	884
UXL-D4CS1	2,750	4,562	3,940	3.7	774	947	1,093	565	745	973	757	1,093	647
UXL-D4DS1	2,750	4,562	3,940	5.5	884	1,082	★	646	852	1,093	866	★	740
UXL-D4ES1	2,750	4,562	3,940	7.5	984	1,093	★	719	948	★	963	★	823
UXL-D4FS1	2,750	4,562	3,940	11.0	1,081	★	★	820	1,081	★	1,081	★	939
UXL-D4GS1	2,750	4,562	3,940	15.0	★	★	★	872	★	★	★	★	★
UXL-E3CS1	3,050	4,792	3,540	3.7	762	933	1,144	557	734	959	746	1,185	637
UXL-E3DS1	3,050	4,792	3,540	5.5	871	1,066	1,218	636	839	1,096	852	1,218	728
UXL-E3ES1	3,050	4,792	3,540	7.5	965	1,181	★	705	930	1,215	945	★	807
UXL-E3FS1	3,050	4,792	3,540	11.0	1,105	★	★	807	1,065	★	1,082	★	924
UXL-E3GS1	3,050	4,792	3,540	15.0	★	★	★	882	★	★	★	★	958
UXL-E4CS1	3,050	4,862	3,940	3.7	813	995	1,218	594	784	1,023	796	1,218	681
UXL-E4DS1	3,050	4,862	3,940	5.5	925	1,132	★	676	891	1,164	906	★	774
UXL-E4ES1	3,050	4,862	3,940	7.5	1,025	1,218	★	749	987	1,218	1,003	★	858
UXL-E4FS1	3,050	4,862	3,940	11.0	1,170	★	★	855	1,127	★	1,145	★	979
UXL-E4GS1	3,050	4,862	3,940	15.0	★	★	★	949	★	★	★	★	1,087
UXL-E4HS1	3,050	4,862	3,940	18.5	★	★	★	972	★	★	★	★	★
UXL-F3CS1	3,450	5,092	3,540	3.7	849	1,039	1,274	620	818	1,068	831	1,320	710
UXL-F3DS1	3,450	5,092	3,540	5.5	969	1,186	1,385	708	934	1,220	949	1,385	811
UXL-F3ES1	3,450	5,092	3,540	7.5	1,072	1,312	★	783	1,033	1,349	1,049	★	897
UXL-F3FS1	3,450	5,092	3,540	11.0	1,232	1,385	★	900	1,187	1,385	1,206	★	1,031
UXL-F3GS1	3,450	5,092	3,540	15.0	★	★	★	1,003	★	★	★	★	1,089
UXL-F4CS1	3,450	5,162	3,940	3.7	939	1,149	1,385	686	905	1,181	919	1,385	786
UXL-F4DS1	3,450	5,162	3,940	5.5	1,072	1,311	★	783	1,033	1,348	1,049	★	897
UXL-F4ES1	3,450	5,162	3,940	7.5	1,196	1,385	★	874	1,152	1,385	1,171	★	1,001
UXL-F4FS1	3,450	5,162	3,940	11.0	1,374	★	★	1,004	1,324	★	1,345	★	1,150
UXL-F4GS1	3,450	5,162	3,940	15.0	★	★	★	1,110	★	★	★	★	1,200
UXL-F4HS1	3,450	5,162	3,940	18.5	★	★	★	★	★	★	★	★	★

★ Kindly Refer To Manufacturer Or Representative For Additional Information.

Aerofoil Axial Flow Type Fan: Aluminium Blades For Selected UXN Series

Fan And Motor Pulley (Cast Iron Or Aluminium Type)

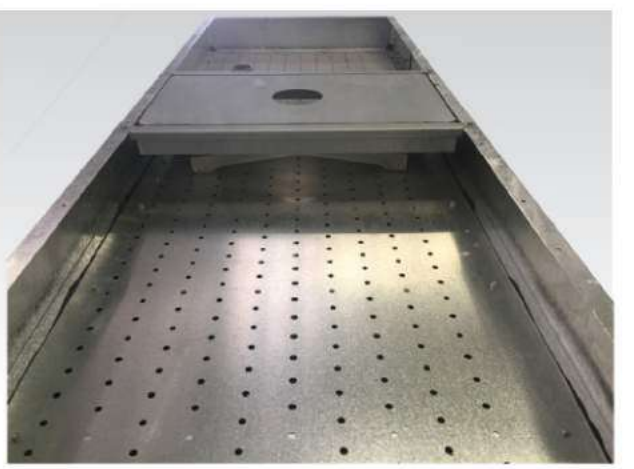
NihonSpindle
Leading Eco-Technology

Selection Table: Super Low Noise Models

Model	Overall Dimension & Motor				Circulating Water Flowrate (USGPM)								
	Width	Length	Height	Motor	95 / 85	97 / 87	100 / 90	95 / 85	97 / 87	100 / 90	100 / 90	105 / 95	105 / 90
	(mm)	(mm)	(mm)	(kW)	78 °F			81.5 °F			85 °F		
UXS-Q1AS1	1,750	3,585	2,880	1.5	303	371	455	221	292	381	296	471	253
UXS-Q1BS1	1,750	3,585	2,880	2.2	342	418	513	249	329	430	334	532	286
UXS-Q1CS1	1,750	3,585	2,880	3.7	406	497	610	296	391	511	397	632	339
UXS-Q1DS1	1,750	3,585	2,880	5.5	463	566	675	338	446	582	453	675	387
UXS-R1AS1	1,850	3,685	2,880	1.5	322	394	484	235	310	405	315	501	269
UXS-R1BS1	1,850	3,685	2,880	2.2	363	445	546	265	350	457	356	565	304
UXS-R1CS1	1,850	3,685	2,880	3.7	431	528	648	315	415	543	422	671	360
UXS-R1DS1	1,850	3,685	2,880	5.5	494	605	717	361	476	622	484	717	413
UXS-R1ES1	1,850	3,685	2,880	7.5	527	623	★	385	508	623	516	★	441
UXS-A1AS1	2,050	3,785	2,880	1.5	361	442	543	264	348	455	354	562	302
UXS-A1BS1	2,050	3,785	2,880	2.2	408	500	613	298	393	514	400	635	341
UXS-A1CS1	2,050	3,785	2,880	3.7	486	595	730	355	468	612	476	756	406
UXS-A1DS1	2,050	3,785	2,880	5.5	560	685	779	409	539	705	548	779	468
UXS-A1ES1	2,050	3,785	2,880	7.5	587	701	★	428	565	★	574	★	490
UXS-B1AS1	2,250	3,985	2,880	1.5	392	480	589	286	378	494	384	610	328
UXS-B1BS1	2,250	3,985	2,880	2.2	443	542	665	323	426	557	433	689	370
UXS-B1CS1	2,250	3,985	2,880	3.7	526	644	790	384	507	662	515	819	440
UXS-B1DS1	2,250	3,985	2,880	5.5	604	740	884	441	582	760	591	884	505
UXS-B1ES1	2,250	3,985	2,880	7.5	660	★	★	482	636	★	646	★	552
UXS-B2AS1	2,250	4,020	3,080	1.5	413	505	620	301	397	519	404	642	345
UXS-B2BS1	2,250	4,020	3,080	2.2	464	568	697	339	447	584	454	722	388
UXS-B2CS1	2,250	4,020	3,080	3.7	551	675	828	403	531	694	540	858	461
UXS-B2DS1	2,250	4,020	3,080	5.5	629	770	884	459	606	792	616	884	526
UXS-B2ES1	2,250	4,020	3,080	7.5	699	803	★	510	673	803	684	★	584
UXS-B3BS1	2,250	4,089	3,475	2.2	504	617	756	368	486	634	493	784	422
UXS-B3CS1	2,250	4,089	3,475	3.7	594	726	884	434	572	747	581	884	497
UXS-B3DS1	2,250	4,089	3,475	5.5	676	828	★	494	652	851	662	★	566
UXS-B3ES1	2,250	4,089	3,475	7.5	749	884	★	547	722	884	733	★	626
UXS-B3FS1	2,250	4,089	3,475	11.0	★	★	★	623	744	★	744	★	713
UXS-B4CS1	2,250	4,162	3,890	3.7	631	771	884	461	608	793	617	884	528
UXS-B4DS1	2,250	4,162	3,890	5.5	715	875	★	522	689	884	700	★	598
UXS-B4ES1	2,250	4,162	3,890	7.5	792	884	★	579	763	★	775	★	663
UXS-B4FS1	2,250	4,162	3,890	11.0	879	★	★	661	872	★	879	★	757
UXS-C1AS1	2,350	4,085	2,880	1.5	416	509	624	303	400	523	407	647	347
UXS-C1BS1	2,350	4,085	2,880	2.2	467	572	702	341	450	588	457	727	391
UXS-C1CS1	2,350	4,085	2,880	3.7	556	680	835	406	535	700	544	865	465
UXS-C1DS1	2,350	4,085	2,880	5.5	640	784	922	467	617	806	627	922	535
UXS-C1ES1	2,350	4,085	2,880	7.5	692	★	★	505	666	★	677	★	578
UXS-C2AS1	2,350	4,120	3,080	1.5	439	537	659	320	423	552	429	682	367
UXS-C2BS1	2,350	4,120	3,080	2.2	492	602	738	359	474	619	481	765	411
UXS-C2CS1	2,350	4,120	3,080	3.7	584	714	876	426	562	735	571	908	488
UXS-C2DS1	2,350	4,120	3,080	5.5	670	820	925	489	646	844	656	925	560

★ Kindly Refer To Manufacturer Or Representative For Additional Information.

Fan Deck View Of External & Internal Piping Option



External Piping Type

Selection Table: Super Low Noise Models

Model	Overall Dimension & Motor				Circulating Water Flowrate (USGPM)								
	Width	Length	Height	Motor	95 / 85	97 / 87	100 / 90	95 / 85	97 / 87	100 / 90	100 / 90	105 / 95	105 / 90
	(mm)	(mm)	(mm)	(kW)	78 °F			81.5 °F			85 °F		
UXS-C2ES1	2,350	4,120	3,080	7.5	747	★	★	546	720	★	731	★	625
UXS-C3BS1	2,350	4,192	3,475	2.2	536	656	804	391	516	674	524	833	448
UXS-C3CS1	2,350	4,192	3,475	3.7	632	774	925	462	609	796	619	925	529
UXS-C3DS1	2,350	4,192	3,475	5.5	723	885	★	528	697	910	708	★	605
UXS-C3ES1	2,350	4,192	3,475	7.5	808	925	★	590	778	925	791	★	676
UXS-C3FS1	2,350	4,192	3,475	11.0	★	★	★	670	★	★	★	★	729
UXS-C4CS1	2,350	4,262	3,890	3.7	674	825	925	493	649	848	660	925	564
UXS-C4DS1	2,350	4,262	3,890	5.5	769	925	★	562	741	925	753	★	644
UXS-C4ES1	2,350	4,262	3,890	7.5	850	★	★	621	819	★	832	★	711
UXS-C4FS1	2,350	4,262	3,890	11.0	873	★	★	712	873	★	873	★	816
UXS-C4GS1	2,350	4,262	3,890	15.0	★	★	★	740	★	★	★	★	★
UXS-D3BS1	2,750	4,492	3,540	2.2	610	747	916	446	588	768	597	949	510
UXS-D3CS1	2,750	4,492	3,540	3.7	718	878	1,077	524	691	903	702	1,093	600
UXS-D3DS1	2,750	4,492	3,540	5.5	820	1,003	1,093	599	789	1,031	802	★	685
UXS-D3ES1	2,750	4,492	3,540	7.5	912	1,093	★	666	878	1,093	893	★	763
UXS-D3FS1	2,750	4,492	3,540	11.0	944	★	★	762	944	★	944	★	872
UXS-D4CS1	2,750	4,562	3,940	3.7	768	939	1,093	561	740	966	751	1,093	642
UXS-D4DS1	2,750	4,562	3,940	5.5	873	1,069	★	638	841	1,093	855	★	731
UXS-D4ES1	2,750	4,562	3,940	7.5	970	1,093	★	709	934	★	949	★	811
UXS-D4FS1	2,750	4,562	3,940	11.0	1,093	★	★	808	1,066	★	1,083	★	926
UXS-D4GS1	2,750	4,562	3,940	15.0	★	★	★	876	★	★	★	★	944
UXS-E3CS1	3,050	4,792	3,540	3.7	756	925	1,134	552	728	951	740	1,175	632
UXS-E3DS1	3,050	4,792	3,540	5.5	862	1,055	1,218	630	831	1,085	844	1,218	721
UXS-E3ES1	3,050	4,792	3,540	7.5	955	1,168	★	697	920	1,201	935	★	799
UXS-E3FS1	3,050	4,792	3,540	11.0	1,090	1,205	★	796	1,050	1,205	1,067	★	912
UXS-E3GS1	3,050	4,792	3,540	15.0	★	★	★	865	★	★	★	★	991
UXS-E4CS1	3,050	4,862	3,940	3.7	806	987	1,210	589	777	1,015	789	1,218	675
UXS-E4DS1	3,050	4,862	3,940	5.5	917	1,122	1,218	670	884	1,154	898	★	768
UXS-E4ES1	3,050	4,862	3,940	7.5	1,014	1,218	★	741	977	1,218	993	★	848
UXS-E4FS1	3,050	4,862	3,940	11.0	1,154	★	★	843	1,112	★	1,129	★	965
UXS-E4GS1	3,050	4,862	3,940	15.0	1,215	★	★	910	1,200	★	1,215	★	1,042
UXS-F3CS1	3,450	5,092	3,540	3.7	843	1,031	1,265	615	812	1,060	825	1,310	705
UXS-F3DS1	3,450	5,092	3,540	5.5	959	1,173	1,385	700	924	1,206	939	1,385	802
UXS-F3ES1	3,450	5,092	3,540	7.5	1,064	1,302	★	777	1,025	1,338	1,041	★	890
UXS-F3FS1	3,450	5,092	3,540	11.0	1,203	1,385	★	878	1,158	1,385	1,177	★	1,006
UXS-F3GS1	3,450	5,092	3,540	15.0	★	★	★	989	★	★	★	★	1,128
UXS-F4CS1	3,450	5,162	3,940	3.7	940	1,150	1,385	687	905	1,182	920	1,385	786
UXS-F4DS1	3,450	5,162	3,940	5.5	1,060	1,297	★	775	1,021	1,334	1,038	★	887
UXS-F4ES1	3,450	5,162	3,940	7.5	1,179	1,385	★	861	1,135	1,385	1,154	★	986
UXS-F4FS1	3,450	5,162	3,940	11.0	1,347	★	★	985	1,298	★	1,319	★	1,127
UXS-F4GS1	3,450	5,162	3,940	15.0	★	★	★	1,103	★	★	★	★	1,216
UXS-F4HS1	3,450	5,162	3,940	18.5	★	★	★	1,106	★	★	★	★	★

★ Kindly Refer To Manufacturer Or Representative For Additional Information.

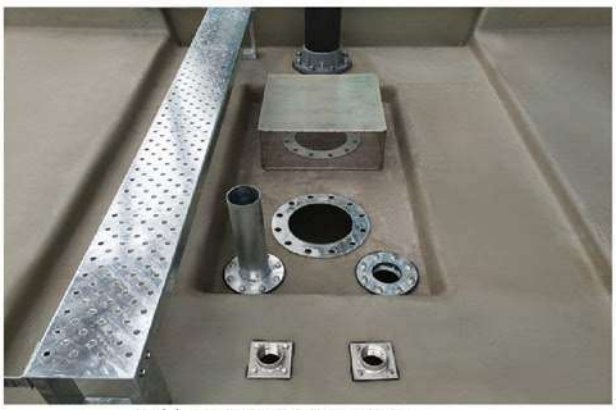
Internal Piping Type

Internal Piping

NihonSpindle
Leading Eco-Technology

Technical Specification: Normal Models

Model	Width	Length		Height			Fan		Weight		Piping Connection					Sound Level (dB(A))		
	-	Base	Overall	Body	Fan	Overall	Diameter	Motor	Dry	Operating	Inlet	Outlet	Drain	Overflow	Make-up	W Side	L Side	Fan 45°
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kW)	(kg)	(kg)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	2 m	2 m	1.5 m
UXN-Q1AS1	1,750	3,270	3,585	2,540	340	2,880	1,500	1.5	773	1,912	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	58.7	62.2	67.7
UXN-Q1BS1	1,750	3,270	3,585	2,540	340	2,880	1,500	2.2	776	1,915	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	61.9	65.4	70.9
UXN-Q1CS1	1,750	3,270	3,585	2,540	340	2,880	1,500	3.7	775	1,914	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	64.2	67.7	73.2
UXN-Q1DS1	1,750	3,270	3,585	2,540	340	2,880	1,500	5.5	778	1,917	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	64.7	68.2	73.7
UXN-Q1ES1	1,750	3,270	3,585	2,540	340	2,880	1,500	7.5	788	1,927	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	65.8	69.3	74.8
UXN-R1AS1	1,850	3,370	3,685	2,540	340	2,880	1,600	1.5	811	2,043	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	59.4	62.9	68.4
UXN-R1BS1	1,850	3,370	3,685	2,540	340	2,880	1,600	2.2	812	2,044	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	61.7	65.2	70.7
UXN-R1CS1	1,850	3,370	3,685	2,540	340	2,880	1,600	3.7	813	2,045	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	64.8	68.3	73.8
UXN-R1DS1	1,850	3,370	3,685	2,540	340	2,880	1,600	5.5	819	2,051	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	66.0	69.5	75.0
UXN-R1ES1	1,850	3,370	3,685	2,540	340	2,880	1,600	7.5	822	2,054	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	65.8	69.3	74.8
UXN-A1AS1	2,050	3,470	3,785	2,540	340	2,880	1,850	1.5	874	2,266	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	60.0	63.5	69.0
UXN-A1BS1	2,050	3,470	3,785	2,540	340	2,880	1,850	2.2	876	2,268	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	62.2	65.7	71.2
UXN-A1CS1	2,050	3,470	3,785	2,540	340	2,880	1,850	3.7	884	2,275	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	65.5	69.0	74.5
UXN-A1DS1	2,050	3,470	3,785	2,540	340	2,880	1,850	5.5	884	2,276	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	66.7	70.2	75.7
UXN-A1ES1	2,050	3,470	3,785	2,540	340	2,880	1,850	7.5	886	2,278	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	67.1	70.6	76.1
UXN-B1AS1	2,250	3,670	3,985	2,540	340	2,880	2,000	1.5	942	2,532	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	59.8	63.3	68.8
UXN-B1BS1	2,250	3,670	3,985	2,540	340	2,880	2,000	2.2	943	2,533	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	63.2	66.7	72.2
UXN-B1CS1	2,250	3,670	3,985	2,540	340	2,880	2,000	3.7	950	2,540	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	65.6	69.1	74.6
UXN-B1DS1	2,250	3,670	3,985	2,540	340	2,880	2,000	5.5	952	2,543	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	66.7	70.2	75.7
UXN-B1ES1	2,250	3,670	3,985	2,540	340	2,880	2,000	7.5	957	2,547	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	67.4	70.9	76.4
UXN-B2AS1	2,250	3,670	4,020	2,740	340	3,080	2,000	1.5	1,027	2,672	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	59.7	63.2	68.7
UXN-B2BS1	2,250	3,670	4,020	2,740	340	3,080	2,000	2.2	1,029	2,673	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.2	66.7	72.2
UXN-B2CS1	2,250	3,670	4,020	2,740	340	3,080	2,000	3.7	1,031	2,675	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	65.6	69.1	74.6
UXN-B2DS1	2,250	3,670	4,020	2,740	340	3,080	2,000	5.5	1,038	2,682	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	66.6	70.1	75.6
UXN-B2ES1	2,250	3,670	4,020	2,740	340	3,080	2,000	7.5	1,042	2,687	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	66.5	70.0	75.5
UXN-B3BS1	2,250	3,670	4,092	3,150	340	3,490	2,000	2.2	1,083	2,891	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.2	66.7	72.2
UXN-B3CS1	2,250	3,670	4,092	3,150	340	3,490	2,000	3.7	1,090	2,898	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	65.6	69.1	74.6
UXN-B3DS1	2,250	3,670	4,092	3,150	340	3,490	2,000	5.5	1,092	2,900	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	66.8	70.3	75.8
UXN-B3ES1	2,250	3,670	4,092	3,150	340	3,490	2,000	7.5	1,096	2,904	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	67.6	71.1	76.6
UXN-B3FS1	2,250	3,670	4,092	3,150	340	3,490	2,000	11.0	1,103	2,911	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	68.6	72.1	77.6
UXN-B4CS1	2,250	3,670	4,162	3,550	340	3,890	2,000	3.7	1,232	3,148	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	65.6	69.1	74.6
UXN-B4DS1	2,250	3,670	4,162	3,550	340	3,890	2,000	5.5	1,235	3,151	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	66.8	70.3	75.8
UXN-B4ES1	2,250	3,670	4,162	3,550	340	3,890	2,000	7.5	1,237	3,153	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	67.5	71.0	76.5
UXN-B4FS1	2,250	3,670	4,162	3,550	340	3,890	2,000	11.0	1,244	3,160	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	68.6	72.1	77.6
UXN-B4GS1	2,250	3,670	4,162	3,550	340	3,890	2,000	15.0	1,273	3,189	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	68.8	72.3	77.8
UXN-C1AS1	2,350	3,770	4,085	2,540	340	2,880	2,200	1.5	1,003	2,698	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	60.0	63.5	69.0
UXN-C1BS1	2,350	3,770	4,085	2,540	340	2,880	2,200	2.2	1,002	2,696	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.5	67.0	72.5
UXN-C1CS1	2,350	3,770	4,085	2,540	340	2,880	2,200	3.7	1,026	2,720	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	65.8	69.3	74.8
UXN-C1DS1	2,350	3,770	4,085	2,540	340	2,880	2,200	5.5	1,030	2,725	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	67.7	71.2	76.7
UXN-C1ES1	2,350	3,770	4,085	2,540	340	2,880	2,200	7.5	1,032	2,727	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	68.1	71.6	77.1
UXN-C2AS1	2,350	3,770	4,120	2,740	340	3,080	2,200	1.5	1,114	2,866	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	60.0	63.5	69.0
UXN-C2BS1	2,350	3,770	4,120	2,740	340	3,080	2,200	2.2	1,109	2,860	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.5	67.0	72.5
UXN-C2CS1	2,350	3,770	4,120	2,740	340	3,080	2,200	3.7	1,146	2,897	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	65.8	69.3	74.8
UXN-C2DS1	2,350	3,770	4,120	2,740	340	3,080	2,200	5.5	1,142	2,893	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	67.7	71.2	76.7



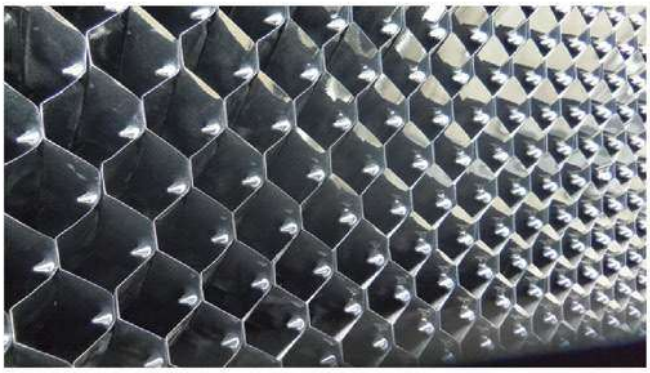
Cold Water Basin Connection

Easy Access Grease Nipple

Technical Specification: Normal Models

Model	Width	Length		Height			Fan		Weight		Piping Connection					Sound Level (d B(A))		
	-	Base	Overall	Body	Fan	Overall	Diameter	Motor	Dry	Operating	Inlet	Outlet	Drain	Overflow	Make-up	W Side	L Side	Fan 45°
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kW)	(kg)	(kg)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	2 m	2 m	1.5 m
UXN-C2ES1	2,350	3,770	4,120	2,740	340	3,080	2,200	7.5	1,141	2,892	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	67.4	70.9	76.4
UXN-C3BS1	2,350	3,770	4,192	3,150	340	3,490	2,200	2.2	1,149	3,072	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.5	67.0	72.5
UXN-C3CS1	2,350	3,770	4,192	3,150	340	3,490	2,200	3.7	1,171	3,094	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	66.0	69.5	75.0
UXN-C3DS1	2,350	3,770	4,192	3,150	340	3,490	2,200	5.5	1,177	3,099	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	67.7	71.2	76.7
UXN-C3ES1	2,350	3,770	4,192	3,150	340	3,490	2,200	7.5	1,183	3,106	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	67.5	71.0	76.5
UXN-C3FS1	2,350	3,770	4,192	3,150	340	3,490	2,200	11.0	1,205	3,128	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	68.8	72.3	77.8
UXN-C4CS1	2,350	3,770	4,262	3,550	340	3,890	2,200	3.7	1,335	3,371	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	65.9	69.4	74.9
UXN-C4DS1	2,350	3,770	4,262	3,550	340	3,890	2,200	5.5	1,340	3,376	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	67.6	71.1	76.6
UXN-C4ES1	2,350	3,770	4,262	3,550	340	3,890	2,200	7.5	1,348	3,384	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	68.1	71.6	77.1
UXN-C4FS1	2,350	3,770	4,262	3,550	340	3,890	2,200	11.0	1,369	3,405	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	68.1	71.6	77.1
UXN-C4GS1	2,350	3,770	4,262	3,550	340	3,890	2,200	15.0	1,372	3,407	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	69.0	72.5	78.0
UXN-D3BS1	2,750	4,070	4,492	3,200	340	3,540	2,475	2.2	1,469	3,838	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.0	66.5	72.0
UXN-D3CS1	2,750	4,070	4,492	3,200	340	3,540	2,475	3.7	1,473	3,841	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	66.7	70.2	75.7
UXN-D3DS1	2,750	4,070	4,492	3,200	340	3,540	2,475	5.5	1,480	3,848	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	67.6	71.1	76.6
UXN-D3ES1	2,750	4,070	4,492	3,200	340	3,540	2,475	7.5	1,486	3,854	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	69.7	73.2	78.7
UXN-D3FS1	2,750	4,070	4,492	3,200	340	3,540	2,475	11.0	1,523	3,891	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	69.8	73.3	78.8
UXN-D4CS1	2,750	4,070	4,562	3,600	340	3,940	2,475	3.7	1,638	4,140	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	66.7	70.2	75.7
UXN-D4DS1	2,750	4,070	4,562	3,600	340	3,940	2,475	5.5	1,643	4,145	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	67.6	71.1	76.6
UXN-D4ES1	2,750	4,070	4,562	3,600	340	3,940	2,475	7.5	1,653	4,155	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	69.7	73.2	78.7
UXN-D4FS1	2,750	4,070	4,562	3,600	340	3,940	2,475	11.0	1,671	4,172	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	69.9	73.4	78.9
UXN-D4GS1	2,750	4,070	4,562	3,600	340	3,940	2,475	15.0	1,696	4,197	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	70.2	73.7	79.2
UXN-E3CS1	3,050	4,370	4,792	3,200	340	3,540	2,475	3.7	1,684	4,437	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	65.6	69.1	74.6
UXN-E3DS1	3,050	4,370	4,792	3,200	340	3,540	2,475	5.5	1,689	4,443	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.5	72.0	77.5
UXN-E3ES1	3,050	4,370	4,792	3,200	340	3,540	2,475	7.5	1,699	4,453	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.7	73.2	78.7
UXN-E3FS1	3,050	4,370	4,792	3,200	340	3,540	2,475	11.0	1,716	4,470	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.9	73.4	78.9
UXN-E3GS1	3,050	4,370	4,792	3,200	340	3,540	2,475	15.0	1,741	4,495	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.5	73.0	78.5
UXN-E4CS1	3,050	4,370	4,862	3,600	340	3,940	2,475	3.7	1,841	4,744	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	65.6	69.1	74.6
UXN-E4DS1	3,050	4,370	4,862	3,600	340	3,940	2,475	5.5	1,847	4,749	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.6	72.1	77.6
UXN-E4ES1	3,050	4,370	4,862	3,600	340	3,940	2,475	7.5	1,853	4,756	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.7	73.2	78.7
UXN-E4FS1	3,050	4,370	4,862	3,600	340	3,940	2,475	11.0	1,874	4,777	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.9	73.4	78.9
UXN-E4GS1	3,050	4,370	4,862	3,600	340	3,940	2,475	15.0	1,905	4,807	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	70.5	74.0	79.5
UXN-E4HS1	3,050	4,370	4,862	3,600	340	3,940	2,475	18.5	1,931	4,834	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	70.5	74.0	79.5
UXN-F3CS1	3,450	4,670	5,092	3,200	340	3,540	2,775	3.7	1,939	5,198	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.2	69.7	75.2
UXN-F3DS1	3,450	4,670	5,092	3,200	340	3,540	2,775	5.5	1,946	5,205	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.4	71.9	77.4
UXN-F3ES1	3,450	4,670	5,092	3,200	340	3,540	2,775	7.5	1,952	5,211	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.1	71.6	77.1
UXN-F3FS1	3,450	4,670	5,092	3,200	340	3,540	2,775	11.0	1,971	5,230	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.2	72.7	78.2
UXN-F3GS1	3,450	4,670	5,092	3,200	340	3,540	2,775	15.0	1,996	5,255	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.6	73.1	78.6
UXN-F4CS1	3,450	4,670	5,162	3,600	340	3,940	3,048	3.7	2,199	5,627	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	67.2	70.7	76.2
UXN-F4DS1	3,450	4,670	5,162	3,600	340	3,940	3,048	5.5	2,207	5,635	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.0	71.5	77.0
UXN-F4ES1	3,450	4,670	5,162	3,600	340	3,940	3,048	7.5	2,228	5,656	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.0	72.5	78.0
UXN-F4FS1	3,450	4,670	5,162	3,600	340	3,940	3,048	11.0	2,234	5,662	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	70.7	74.2	79.7
UXN-F4GS1	3,450	4,670	5,162	3,600	340	3,940	3,048	15.0	2,266	5,694	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	69.5	73.0	78.5
UXN-F4HS1	3,450	4,670	5,162	3,600	340	3,940	3,048	18.5	2,284	5,712	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	71.2	74.7	80.2

Hanging Type UPVC
Infill At A Slopping Angle

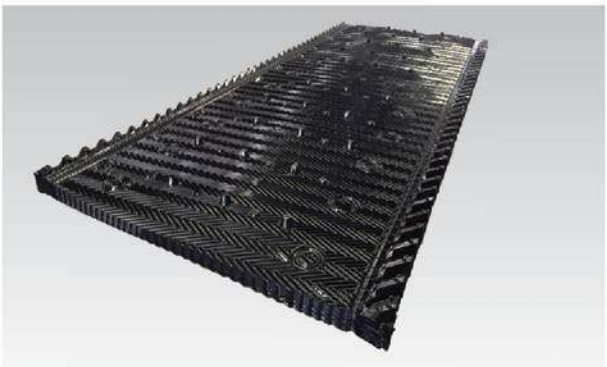


Adhesire Free UPVC
Fill Sheet With Interlocking Studs

NihonSpindle
Leading Eco-Technology

Technical Specification: Low Noise Models

Model	Width	Length		Height			Fan		Weight		Piping Connection					Sound Level (dB(A))		
	-	Base	Overall	Body	Fan	Overall	Diameter	Motor	Dry	Operating	Inlet	Outlet	Drain	Overflow	Make-up	W Side	L Side	Fan 45°
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kW)	(kg)	(kg)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	2 m	2 m	1.5 m
UXL-Q1AS1	1,750	3,270	3,585	2,540	340	2,880	1,500	1.5	773	1,912	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	58.7	62.2	67.7
UXL-Q1BS1	1,750	3,270	3,585	2,540	340	2,880	1,500	2.2	776	1,915	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	60.2	63.7	69.2
UXL-Q1CS1	1,750	3,270	3,585	2,540	340	2,880	1,500	3.7	775	1,914	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	61.1	64.6	70.1
UXL-Q1DS1	1,750	3,270	3,585	2,540	340	2,880	1,500	5.5	778	1,917	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.4	65.9	71.4
UXL-Q1ES1	1,750	3,270	3,585	2,540	340	2,880	1,500	7.5	788	1,927	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	61.8	65.3	70.8
UXL-R1AS1	1,850	3,370	3,685	2,540	340	2,880	1,600	1.5	811	2,043	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	59.4	62.9	68.4
UXL-R1BS1	1,850	3,370	3,685	2,540	340	2,880	1,600	2.2	812	2,044	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	59.9	63.4	68.9
UXL-R1CS1	1,850	3,370	3,685	2,540	340	2,880	1,600	3.7	813	2,045	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	61.7	65.2	70.7
UXL-R1DS1	1,850	3,370	3,685	2,540	340	2,880	1,600	5.5	819	2,051	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.4	65.9	71.4
UXL-R1ES1	1,850	3,370	3,685	2,540	340	2,880	1,600	7.5	822	2,054	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	62.5	66.0	71.5
UXL-A1AS1	2,050	3,470	3,785	2,540	340	2,880	1,850	1.5	874	2,266	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	60.0	63.5	69.0
UXL-A1BS1	2,050	3,470	3,785	2,540	340	2,880	1,850	2.2	876	2,268	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	61.4	64.9	70.4
UXL-A1CS1	2,050	3,470	3,785	2,540	340	2,880	1,850	3.7	884	2,275	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.2	65.7	71.2
UXL-A1DS1	2,050	3,470	3,785	2,540	340	2,880	1,850	5.5	884	2,276	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.9	66.4	71.9
UXL-A1ES1	2,050	3,470	3,785	2,540	340	2,880	1,850	7.5	886	2,278	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.0	66.5	72.0
UXL-B1AS1	2,250	3,670	3,985	2,540	340	2,880	2,000	1.5	942	2,532	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	59.8	63.3	68.8
UXL-B1BS1	2,250	3,670	3,985	2,540	340	2,880	2,000	2.2	943	2,533	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	62.1	65.6	71.1
UXL-B1CS1	2,250	3,670	3,985	2,540	340	2,880	2,000	3.7	950	2,540	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.1	66.6	72.1
UXL-B1DS1	2,250	3,670	3,985	2,540	340	2,880	2,000	5.5	952	2,543	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.8	66.3	71.8
UXL-B1ES1	2,250	3,670	3,985	2,540	340	2,880	2,000	7.5	957	2,547	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.8	67.3	72.8
UXL-B2AS1	2,250	3,670	4,020	2,740	340	3,080	2,000	1.5	1,027	2,672	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	59.7	63.2	68.7
UXL-B2BS1	2,250	3,670	4,020	2,740	340	3,080	2,000	2.2	1,029	2,673	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.1	65.6	71.1
UXL-B2CS1	2,250	3,670	4,020	2,740	340	3,080	2,000	3.7	1,031	2,675	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.1	66.6	72.1
UXL-B2DS1	2,250	3,670	4,020	2,740	340	3,080	2,000	5.5	1,038	2,682	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.8	66.3	71.8
UXL-B2ES1	2,250	3,670	4,020	2,740	340	3,080	2,000	7.5	1,042	2,687	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	64.2	67.7	73.2
UXL-B3BS1	2,250	3,670	4,092	3,150	340	3,490	2,000	2.2	1,083	2,891	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.0	65.5	71.0
UXL-B3CS1	2,250	3,670	4,092	3,150	340	3,490	2,000	3.7	1,090	2,898	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.8	67.3	72.8
UXL-B3DS1	2,250	3,670	4,092	3,150	340	3,490	2,000	5.5	1,092	2,900	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	64.4	67.9	73.4
UXL-B3ES1	2,250	3,670	4,092	3,150	340	3,490	2,000	7.5	1,096	2,904	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	65.0	68.5	74.0
UXL-B3FS1	2,250	3,670	4,092	3,150	340	3,490	2,000	11.0	1,103	2,911	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	65.7	69.2	74.7
UXL-B4CS1	2,250	3,670	4,162	3,550	340	3,890	2,000	3.7	1,232	3,148	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.7	67.2	72.7
UXL-B4DS1	2,250	3,670	4,162	3,550	340	3,890	2,000	5.5	1,235	3,151	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	64.3	67.8	73.3
UXL-B4ES1	2,250	3,670	4,162	3,550	340	3,890	2,000	7.5	1,237	3,153	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	65.0	68.5	74.0
UXL-B4FS1	2,250	3,670	4,162	3,550	340	3,890	2,000	11.0	1,244	3,160	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	65.6	69.1	74.6
UXL-B4GS1	2,250	3,670	4,162	3,550	340	3,890	2,000	15.0	1,273	3,189	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	65.4	68.9	74.4
UXL-C1AS1	2,350	3,770	4,085	2,540	340	2,880	2,200	1.5	1,003	2,698	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	60.0	63.5	69.0
UXL-C1BS1	2,350	3,770	4,085	2,540	340	2,880	2,200	2.2	1,002	2,696	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.4	65.9	71.4
UXL-C1CS1	2,350	3,770	4,085	2,540	340	2,880	2,200	3.7	1,026	2,720	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.5	67.0	72.5
UXL-C1DS1	2,350	3,770	4,085	2,540	340	2,880	2,200	5.5	1,030	2,725	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	64.0	67.5	73.0
UXL-C1ES1	2,350	3,770	4,085	2,540	340	2,880	2,200	7.5	1,032	2,727	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	64.3	67.8	73.3
UXL-C2AS1	2,350	3,770	4,120	2,740	340	3,080	2,200	1.5	1,114	2,866	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	60.0	63.5	69.0
UXL-C2BS1	2,350	3,770	4,120	2,740	340	3,080	2,200	2.2	1,109	2,860	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.4	65.9	71.4
UXL-C2CS1	2,350	3,770	4,120	2,740	340	3,080	2,200	3.7	1,146	2,897	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.4	66.9	72.4
UXL-C2DS1	2,350	3,770	4,120	2,740	340	3,080	2,200	5.5	1,142	2,893	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	64.0	67.5	73.0



UV-Treated Polyvinyl Chloride
(UPVC) And Thermo-Vacumm Formed Fills

High Quality Fan And Motor Bearing

Technical Specification: Low Noise models

Model	Width	Length		Height			Fan		Weight		Piping Connection					Sound Level (d B(A))		
	-	Base	Overall	Body	Fan	Overall	Diameter	Motor	Dry	Operating	Inlet	Outlet	Drain	Overflow	Make-up	W Side	L Side	Fan 45°
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kW)	(kg)	(kg)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	2 m	2 m	1.5 m
UXL-C2ES1	2,350	3,770	4,120	2,740	340	3,080	2,200	7.5	1,141	2,892	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	64.6	68.1	73.6
UXL-C3BS1	2,350	3,770	4,192	3,150	340	3,490	2,200	2.2	1,149	3,072	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	62.4	65.9	71.4
UXL-C3CS1	2,350	3,770	4,192	3,150	340	3,490	2,200	3.7	1,171	3,094	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.4	66.9	72.4
UXL-C3DS1	2,350	3,770	4,192	3,150	340	3,490	2,200	5.5	1,177	3,099	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	64.6	68.1	73.6
UXL-C3ES1	2,350	3,770	4,192	3,150	340	3,490	2,200	7.5	1,183	3,106	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	64.5	68.0	73.5
UXL-C3FS1	2,350	3,770	4,192	3,150	340	3,490	2,200	11.0	1,205	3,128	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	66.2	69.7	75.2
UXL-C4CS1	2,350	3,770	4,262	3,550	340	3,890	2,200	3.7	1,335	3,371	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	63.4	66.9	72.4
UXL-C4DS1	2,350	3,770	4,262	3,550	340	3,890	2,200	5.5	1,340	3,376	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	64.5	68.0	73.5
UXL-C4ES1	2,350	3,770	4,262	3,550	340	3,890	2,200	7.5	1,348	3,384	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	65.2	68.7	74.2
UXL-C4FS1	2,350	3,770	4,262	3,550	340	3,890	2,200	11.0	1,369	3,405	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	66.1	69.6	75.1
UXL-C4GS1	2,350	3,770	4,262	3,550	340	3,890	2,200	15.0	1,372	3,407	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	66.9	70.4	75.9
UXL-D3BS1	2,750	4,070	4,492	3,200	340	3,540	2,475	2.2	1,469	3,838	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	63.0	66.5	72.0
UXL-D3CS1	2,750	4,070	4,492	3,200	340	3,540	2,475	3.7	1,473	3,841	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	64.1	67.6	73.1
UXL-D3DS1	2,750	4,070	4,492	3,200	340	3,540	2,475	5.5	1,480	3,848	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	65.3	68.8	74.3
UXL-D3ES1	2,750	4,070	4,492	3,200	340	3,540	2,475	7.5	1,486	3,854	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	65.7	69.2	74.7
UXL-D3FS1	2,750	4,070	4,492	3,200	340	3,540	2,475	11.0	1,523	3,891	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	66.3	69.8	75.3
UXL-D4CS1	2,750	4,070	4,562	3,600	340	3,940	2,475	3.7	1,638	4,140	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	64.8	68.3	73.8
UXL-D4DS1	2,750	4,070	4,562	3,600	340	3,940	2,475	5.5	1,643	4,145	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	65.2	68.7	74.2
UXL-D4ES1	2,750	4,070	4,562	3,600	340	3,940	2,475	7.5	1,653	4,155	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	65.9	69.4	74.9
UXL-D4FS1	2,750	4,070	4,562	3,600	340	3,940	2,475	11.0	1,671	4,172	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	66.2	69.7	75.2
UXL-D4GS1	2,750	4,070	4,562	3,600	340	3,940	2,475	15.0	1,696	4,197	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	66.5	70.0	75.5
UXL-E3CS1	3,050	4,370	4,792	3,200	340	3,540	2,475	3.7	1,684	4,437	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	64.8	68.3	73.8
UXL-E3DS1	3,050	4,370	4,792	3,200	340	3,540	2,475	5.5	1,689	4,443	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	65.3	68.8	74.3
UXL-E3ES1	3,050	4,370	4,792	3,200	340	3,540	2,475	7.5	1,699	4,453	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	65.9	69.4	74.9
UXL-E3FS1	3,050	4,370	4,792	3,200	340	3,540	2,475	11.0	1,716	4,470	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.2	69.7	75.2
UXL-E3GS1	3,050	4,370	4,792	3,200	340	3,540	2,475	15.0	1,741	4,495	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.5	70.0	75.5
UXL-E4CS1	3,050	4,370	4,862	3,600	340	3,940	2,475	3.7	1,841	4,744	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	64.7	68.2	73.7
UXL-E4DS1	3,050	4,370	4,862	3,600	340	3,940	2,475	5.5	1,847	4,749	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	65.2	68.7	74.2
UXL-E4ES1	3,050	4,370	4,862	3,600	340	3,940	2,475	7.5	1,853	4,756	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	65.8	69.3	74.8
UXL-E4FS1	3,050	4,370	4,862	3,600	340	3,940	2,475	11.0	1,874	4,777	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.1	69.6	75.1
UXL-E4GS1	3,050	4,370	4,862	3,600	340	3,940	2,475	15.0	1,905	4,807	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.5	70.0	75.5
UXL-E4HS1	3,050	4,370	4,862	3,600	340	3,940	2,475	18.5	1,931	4,834	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	67.3	70.8	76.3
UXL-F3CS1	3,450	4,670	5,092	3,200	340	3,540	2,775	3.7	1,939	5,198	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	64.9	68.4	73.9
UXL-F3DS1	3,450	4,670	5,092	3,200	340	3,540	2,775	5.5	1,946	5,205	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.1	69.6	75.1
UXL-F3ES1	3,450	4,670	5,092	3,200	340	3,540	2,775	7.5	1,952	5,211	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.7	70.2	75.7
UXL-F3FS1	3,450	4,670	5,092	3,200	340	3,540	2,775	11.0	1,971	5,230	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.9	70.4	75.9
UXL-F3GS1	3,450	4,670	5,092	3,200	340	3,540	2,775	15.0	1,996	5,255	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	67.6	71.1	76.6
UXL-F4CS1	3,450	4,670	5,162	3,600	340	3,940	3,048	3.7	2,199	5,627	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	64.8	68.3	73.8
UXL-F4DS1	3,450	4,670	5,162	3,600	340	3,940	3,048	5.5	2,207	5,635	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.2	69.7	75.2
UXL-F4ES1	3,450	4,670	5,162	3,600	340	3,940	3,048	7.5	2,228	5,656	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	66.7	70.2	75.7
UXL-F4FS1	3,450	4,670	5,162	3,600	340	3,940	3,048	11.0	2,234	5,662	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.2	71.7	77.2
UXL-F4GS1	3,450	4,670	5,162	3,600	340	3,940	3,048	15.0	2,266	5,694	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.6	72.1	77.6
UXL-F4HS1	3,450	4,670	5,162	3,600	340	3,940	3,048	18.5	2,284	5,712	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	68.6	72.1	77.6

Preliminary Discussion

Layout And Planning

Technical Specification: Super Low Noise Models

Model	Width	Length		Height			Fan		Weight		Piping Connection					Sound Level (dB(A))		
	-	Base	Overall	Body	Fan	Overall	Diameter	Motor	Dry	Operating	Inlet	Outlet	Drain	Overflow	Make-up	W Side	L Side	Fan 45°
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kW)	(kg)	(kg)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	2 m	2 m	1.5 m
UXS-Q1AS1	1,750	3,270	3,585	2,540	340	2,880	1,500	1.5	773	1,912	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	54.5	58.0	63.5
UXS-Q1BS1	1,750	3,270	3,585	2,540	340	2,880	1,500	2.2	776	1,915	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	55.4	58.9	64.4
UXS-Q1CS1	1,750	3,270	3,585	2,540	340	2,880	1,500	3.7	775	1,914	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	56.6	60.1	65.6
UXS-Q1DS1	1,750	3,270	3,585	2,540	340	2,880	1,500	5.5	778	1,917	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	57.4	60.9	66.4
UXS-R1AS1	1,850	3,370	3,685	2,540	340	2,880	1,600	1.5	811	2,043	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	55.0	58.5	64.0
UXS-R1BS1	1,850	3,370	3,685	2,540	340	2,880	1,600	2.2	812	2,044	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	55.8	59.3	64.8
UXS-R1CS1	1,850	3,370	3,685	2,540	340	2,880	1,600	3.7	813	2,045	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	57.1	60.6	66.1
UXS-R1DS1	1,850	3,370	3,685	2,540	340	2,880	1,600	5.5	819	2,051	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	57.7	61.2	66.7
UXS-R1ES1	1,850	3,370	3,685	2,540	340	2,880	1,600	7.5	822	2,054	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	58.1	61.6	67.1
UXS-A1AS1	2,050	3,470	3,785	2,540	340	2,880	1,850	1.5	874	2,266	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	55.7	59.2	64.7
UXS-A1BS1	2,050	3,470	3,785	2,540	340	2,880	1,850	2.2	876	2,268	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	56.4	59.9	65.4
UXS-A1CS1	2,050	3,470	3,785	2,540	340	2,880	1,850	3.7	884	2,275	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	57.6	61.1	66.6
UXS-A1DS1	2,050	3,470	3,785	2,540	340	2,880	1,850	5.5	884	2,276	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.5	62.0	67.5
UXS-A1ES1	2,050	3,470	3,785	2,540	340	2,880	1,850	7.5	886	2,278	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.2	61.7	67.2
UXS-B1AS1	2,250	3,670	3,985	2,540	340	2,880	2,000	1.5	942	2,532	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	56.2	59.7	65.2
UXS-B1BS1	2,250	3,670	3,985	2,540	340	2,880	2,000	2.2	943	2,533	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	57.0	60.5	66.0
UXS-B1CS1	2,250	3,670	3,985	2,540	340	2,880	2,000	3.7	950	2,540	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.3	61.8	67.3
UXS-B1DS1	2,250	3,670	3,985	2,540	340	2,880	2,000	5.5	952	2,543	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.7	62.2	67.7
UXS-B1ES1	2,250	3,670	3,985	2,540	340	2,880	2,000	7.5	957	2,547	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	59.0	62.5	68.0
UXS-B2AS1	2,250	3,670	4,020	2,740	340	3,080	2,000	1.5	1,027	2,672	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	56.1	59.6	65.1
UXS-B2BS1	2,250	3,670	4,020	2,740	340	3,080	2,000	2.2	1,029	2,673	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	57.0	60.5	66.0
UXS-B2CS1	2,250	3,670	4,020	2,740	340	3,080	2,000	3.7	1,031	2,675	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.2	61.7	67.2
UXS-B2DS1	2,250	3,670	4,020	2,740	340	3,080	2,000	5.5	1,038	2,682	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.9	62.4	67.9
UXS-B2ES1	2,250	3,670	4,020	2,740	340	3,080	2,000	7.5	1,042	2,687	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	59.5	63.0	68.5
UXS-B3BS1	2,250	3,670	4,092	3,150	340	3,490	2,000	2.2	1,083	2,891	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	57.6	61.1	66.6
UXS-B3CS1	2,250	3,670	4,092	3,150	340	3,490	2,000	3.7	1,090	2,898	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.8	62.3	67.8
UXS-B3DS1	2,250	3,670	4,092	3,150	340	3,490	2,000	5.5	1,092	2,900	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	58.8	62.3	67.8
UXS-B3ES1	2,250	3,670	4,092	3,150	340	3,490	2,000	7.5	1,096	2,904	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	59.8	63.3	68.8
UXS-B3FS1	2,250	3,670	4,092	3,150	340	3,490	2,000	11.0	1,103	2,911	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	60.7	64.2	69.7
UXS-B4CS1	2,250	3,670	4,162	3,550	340	3,890	2,000	3.7	1,232	3,148	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.7	62.2	67.7
UXS-B4DS1	2,250	3,670	4,162	3,550	340	3,890	2,000	5.5	1,235	3,151	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	59.3	62.8	68.3
UXS-B4ES1	2,250	3,670	4,162	3,550	340	3,890	2,000	7.5	1,237	3,153	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	59.8	63.3	68.8
UXS-B4FS1	2,250	3,670	4,162	3,550	340	3,890	2,000	11.0	1,244	3,160	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	60.9	64.4	69.9
UXS-C1AS1	2,350	3,770	4,085	2,540	340	2,880	2,200	1.5	1,003	2,698	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	56.4	59.9	65.4
UXS-C1BS1	2,350	3,770	4,085	2,540	340	2,880	2,200	2.2	1,002	2,696	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	57.2	60.7	66.2
UXS-C1CS1	2,350	3,770	4,085	2,540	340	2,880	2,200	3.7	1,026	2,720	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.4	61.9	67.4
UXS-C1DS1	2,350	3,770	4,085	2,540	340	2,880	2,200	5.5	1,030	2,725	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	59.2	62.7	68.2
UXS-C1ES1	2,350	3,770	4,085	2,540	340	2,880	2,200	7.5	1,032	2,727	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	59.5	63.0	68.5
UXS-C2AS1	2,350	3,770	4,120	2,740	340	3,080	2,200	1.5	1,114	2,866	100A x 2	125A x 1	50A x 1	50A x 1	25A x 2	56.3	59.8	65.3
UXS-C2BS1	2,350	3,770	4,120	2,740	340	3,080	2,200	2.2	1,109	2,860	100A x 2	150A x 1	50A x 1	50A x 1	25A x 2	57.2	60.7	66.2
UXS-C2CS1	2,350	3,770	4,120	2,740	340	3,080	2,200	3.7	1,146	2,897	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.4	61.9	67.4
UXS-C2DS1	2,350	3,770	4,120	2,740	340	3,080	2,200	5.5	1,142	2,893	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	59.2	62.7	68.2
UXS-C2ES1	2,350	3,770	4,120	2,740	340	3,080	2,200	7.5	1,141	2,892	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	59.3	62.8	68.3

Quality Control

Engineering Design

Technical Specification: Super Low Noise Models

Model	Width	Length		Height			Fan		Weight		Piping Connection					Sound Level (d B(A))		
	-	Base	Overall	Body	Fan	Overall	Diameter	Motor	Dry	Operating	Inlet	Outlet	Drain	Overflow	Make-up	W Side	L Side	Fan 45°
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kW)	(kg)	(kg)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	(Size x xQty)	2 m	2 m	1.5 m
UXS-C3BS1	2,350	3,770	4,192	3,150	340	3,490	2,200	2.2	1,149	3,072	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.1	61.6	67.1
UXS-C3CS1	2,350	3,770	4,192	3,150	340	3,490	2,200	3.7	1,171	3,094	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.5	62.0	67.5
UXS-C3DS1	2,350	3,770	4,192	3,150	340	3,490	2,200	5.5	1,177	3,099	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	59.4	62.9	68.4
UXS-C3ES1	2,350	3,770	4,192	3,150	340	3,490	2,200	7.5	1,183	3,106	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	60.3	63.8	69.3
UXS-C3FS1	2,350	3,770	4,192	3,150	340	3,490	2,200	11.0	1,205	3,128	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	61.0	64.5	70.0
UXS-C4CS1	2,350	3,770	4,262	3,550	340	3,890	2,200	3.7	1,335	3,371	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	59.2	62.7	68.2
UXS-C4DS1	2,350	3,770	4,262	3,550	340	3,890	2,200	5.5	1,340	3,376	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	59.9	63.4	68.9
UXS-C4ES1	2,350	3,770	4,262	3,550	340	3,890	2,200	7.5	1,348	3,384	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	60.1	63.6	69.1
UXS-C4FS1	2,350	3,770	4,262	3,550	340	3,890	2,200	11.0	1,369	3,405	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	61.0	64.5	70.0
UXS-C4GS1	2,350	3,770	4,262	3,550	340	3,890	2,200	15.0	1,372	3,407	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	61.2	64.7	70.2
UXS-D3BS1	2,750	4,070	4,492	3,200	340	3,540	2,475	2.2	1,469	3,838	125A x 2	150A x 1	50A x 1	50A x 1	25A x 2	58.0	61.5	67.0
UXS-D3CS1	2,750	4,070	4,492	3,200	340	3,540	2,475	3.7	1,473	3,841	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	59.5	63.0	68.5
UXS-D3DS1	2,750	4,070	4,492	3,200	340	3,540	2,475	5.5	1,480	3,848	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	60.2	63.7	69.2
UXS-D3ES1	2,750	4,070	4,492	3,200	340	3,540	2,475	7.5	1,486	3,854	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	60.3	63.8	69.3
UXS-D3FS1	2,750	4,070	4,492	3,200	340	3,540	2,475	11.0	1,523	3,891	125A x 2	150A x 1	50A x 1	50A x 1	40A x 2	61.8	65.3	70.8
UXS-D4CS1	2,750	4,070	4,562	3,600	340	3,940	2,475	3.7	1,638	4,140	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	59.4	62.9	68.4
UXS-D4DS1	2,750	4,070	4,562	3,600	340	3,940	2,475	5.5	1,643	4,145	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	60.1	63.6	69.1
UXS-D4ES1	2,750	4,070	4,562	3,600	340	3,940	2,475	7.5	1,653	4,155	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	60.8	64.3	69.8
UXS-D4FS1	2,750	4,070	4,562	3,600	340	3,940	2,475	11.0	1,671	4,172	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	61.7	65.2	70.7
UXS-D4GS1	2,750	4,070	4,562	3,600	340	3,940	2,475	15.0	1,696	4,197	125A x 2	200A x 1	50A x 1	50A x 1	40A x 2	62.2	65.7	71.2
UXS-E3CS1	3,050	4,370	4,792	3,200	340	3,540	2,475	3.7	1,684	4,437	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	59.4	62.9	68.4
UXS-E3DS1	3,050	4,370	4,792	3,200	340	3,540	2,475	5.5	1,689	4,443	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	60.7	64.2	69.7
UXS-E3ES1	3,050	4,370	4,792	3,200	340	3,540	2,475	7.5	1,699	4,453	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	60.8	64.3	69.8
UXS-E3FS1	3,050	4,370	4,792	3,200	340	3,540	2,475	11.0	1,716	4,470	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	61.7	65.2	70.7
UXS-E3GS1	3,050	4,370	4,792	3,200	340	3,540	2,475	15.0	1,741	4,495	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	62.2	65.7	71.2
UXS-E4CS1	3,050	4,370	4,862	3,600	340	3,940	2,475	3.7	1,841	4,744	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	60.0	63.5	69.0
UXS-E4DS1	3,050	4,370	4,862	3,600	340	3,940	2,475	5.5	1,847	4,749	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	60.6	64.1	69.6
UXS-E4ES1	3,050	4,370	4,862	3,600	340	3,940	2,475	7.5	1,853	4,756	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	60.7	64.2	69.7
UXS-E4FS1	3,050	4,370	4,862	3,600	340	3,940	2,475	11.0	1,874	4,777	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	61.6	65.1	70.6
UXS-E4GS1	3,050	4,370	4,862	3,600	340	3,940	2,475	15.0	1,905	4,807	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	62.2	65.7	71.2
UXS-F3CS1	3,450	4,670	5,092	3,200	340	3,540	2,775	3.7	1,939	5,198	125A x 2	200A x 1	80A x 1	80A x 1	40A x 2	60.1	63.6	69.1
UXS-F3DS1	3,450	4,670	5,092	3,200	340	3,540	2,775	5.5	1,946	5,205	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	61.0	64.5	70.0
UXS-F3ES1	3,450	4,670	5,092	3,200	340	3,540	2,775	7.5	1,952	5,211	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	61.7	65.2	70.7
UXS-F3FS1	3,450	4,670	5,092	3,200	340	3,540	2,775	11.0	1,971	5,230	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	62.2	65.7	71.2
UXS-F3GS1	3,450	4,670	5,092	3,200	340	3,540	2,775	15.0	1,996	5,255	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	62.6	66.1	71.6
UXS-F4CS1	3,450	4,670	5,162	3,600	340	3,940	3,048	3.7	2,199	5,627	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	61.0	64.5	70.0
UXS-F4DS1	3,450	4,670	5,162	3,600	340	3,940	3,048	5.5	2,207	5,635	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	61.2	64.7	70.2
UXS-F4ES1	3,450	4,670	5,162	3,600	340	3,940	3,048	7.5	2,228	5,656	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	62.1	65.6	71.1
UXS-F4FS1	3,450	4,670	5,162	3,600	340	3,940	3,048	11.0	2,234	5,662	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	62.5	66.0	71.5
UXS-F4GS1	3,450	4,670	5,162	3,600	340	3,940	3,048	15.0	2,266	5,694	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	63.4	66.9	72.4
UXS-F4HS1	3,450	4,670	5,162	3,600	340	3,940	3,048	18.5	2,284	5,712	150A x 2	200A x 1	80A x 1	80A x 1	40A x 2	63.9	67.4	72.9

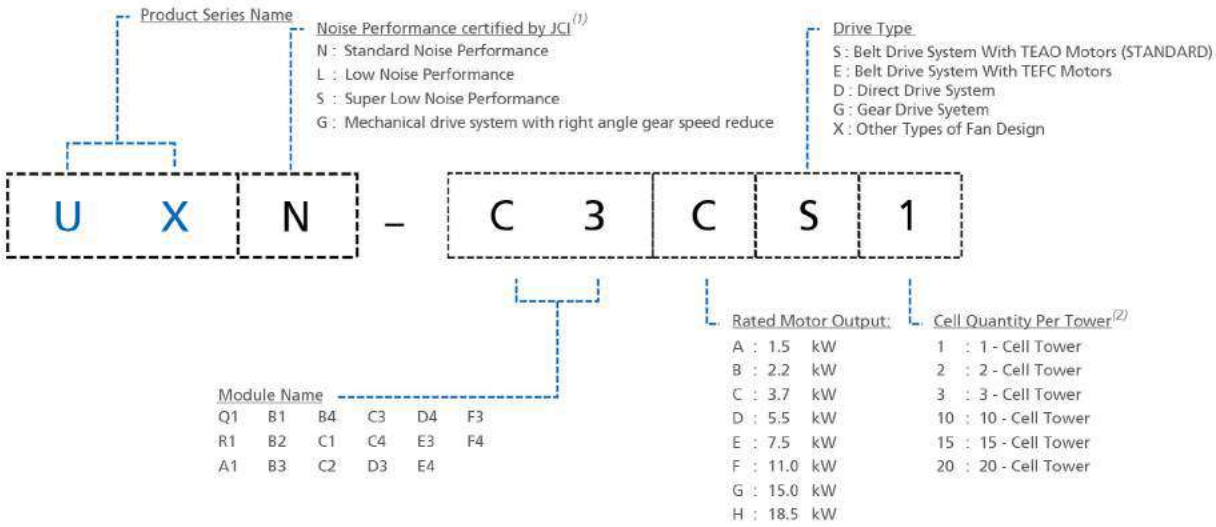
Container Loading

Comprehensive Customer Support

NihonSpindle
Leading Eco-Technology

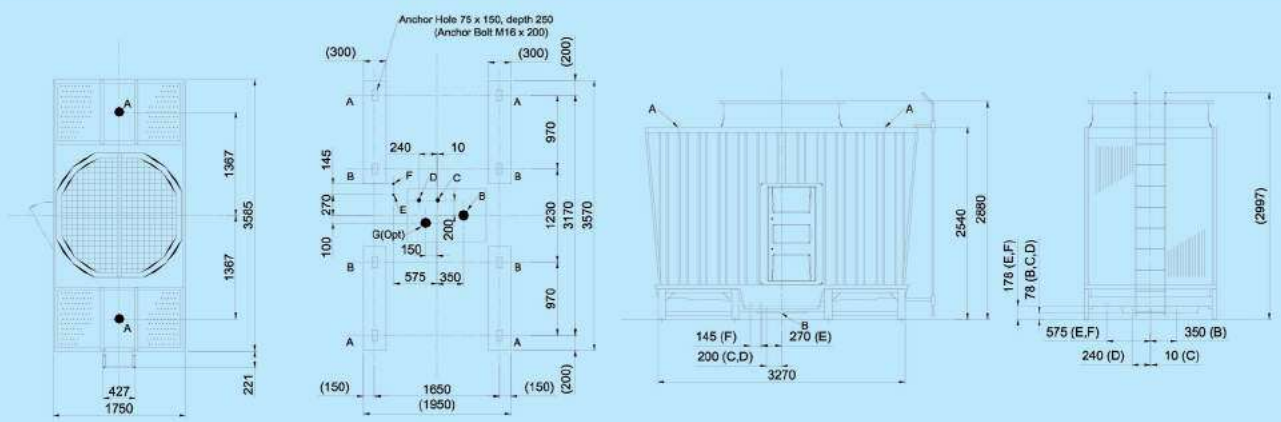
Tower Information

Definition of Model Name

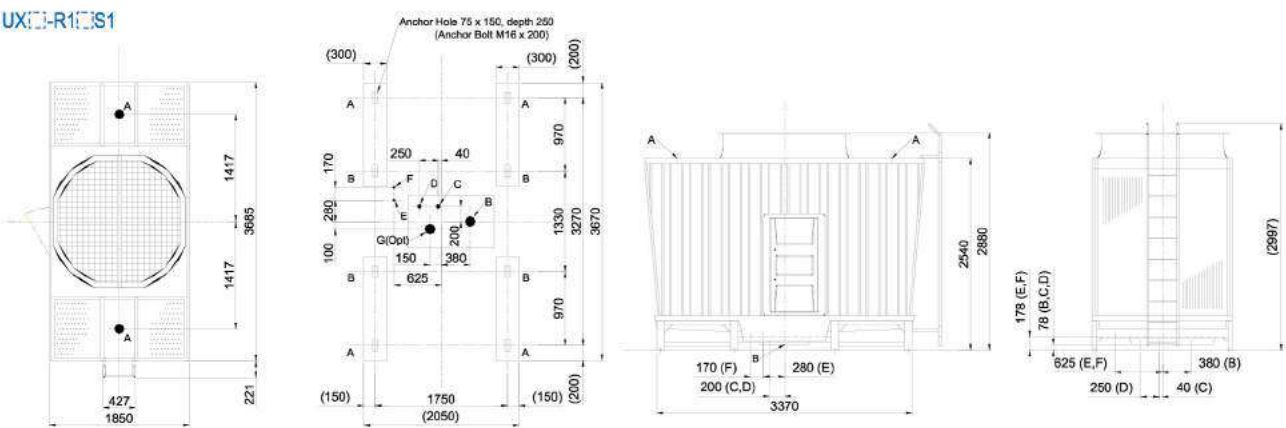


Note (1): Japan Cooling Tower Institute (JCI).
Note (2): Multi-cell configuration for crossflow type cooling towers do not require thermal derating as air-intake ratio is directly proportianate to number of cells. In other words, no limitatations to number of cells per tower.

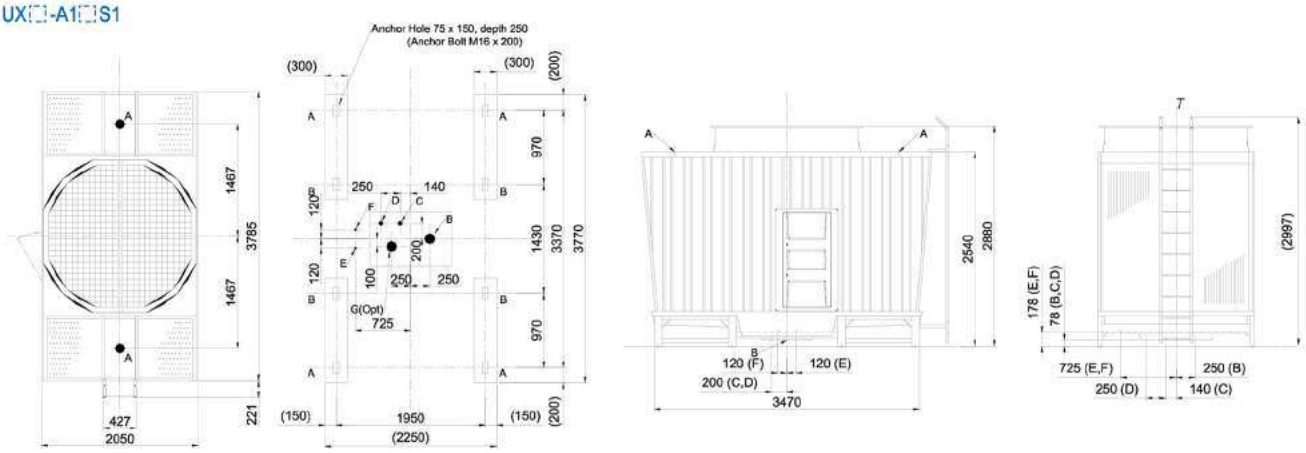
UX□-Q1□S1



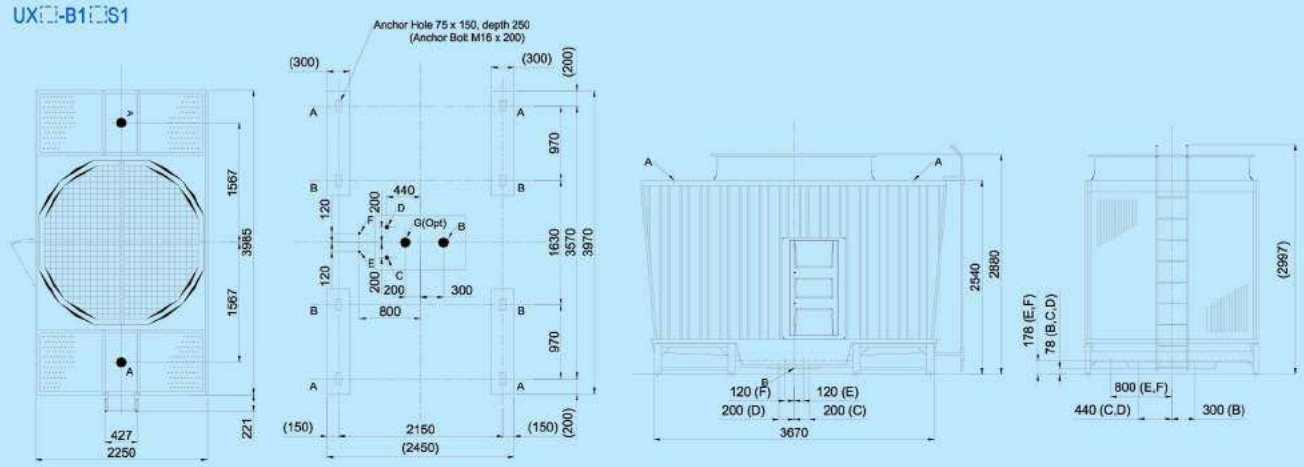
UX□-R1□S1



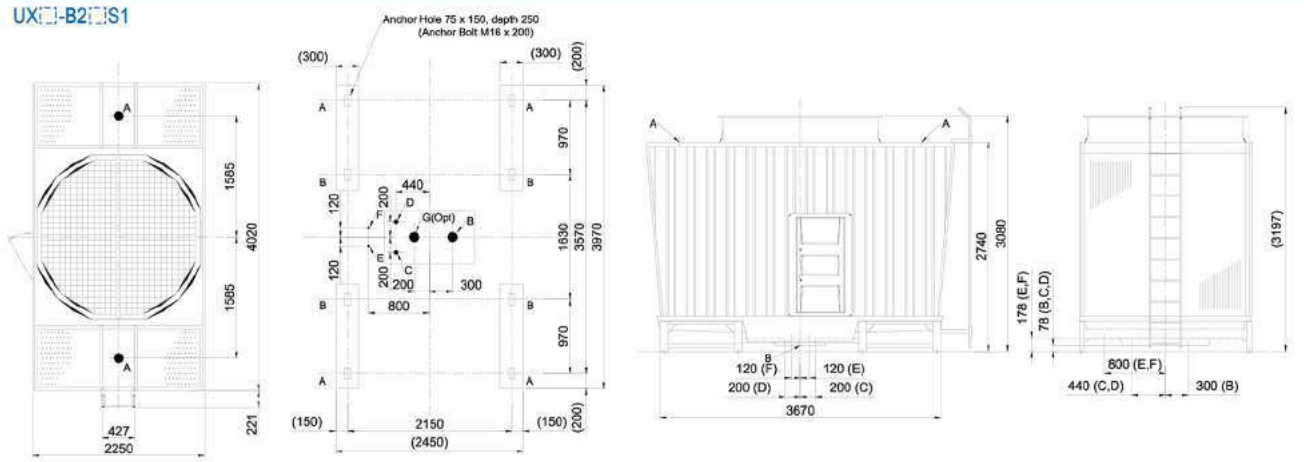
UX□-A1□S1



UX□-B1□S1



UX□-B2□S1



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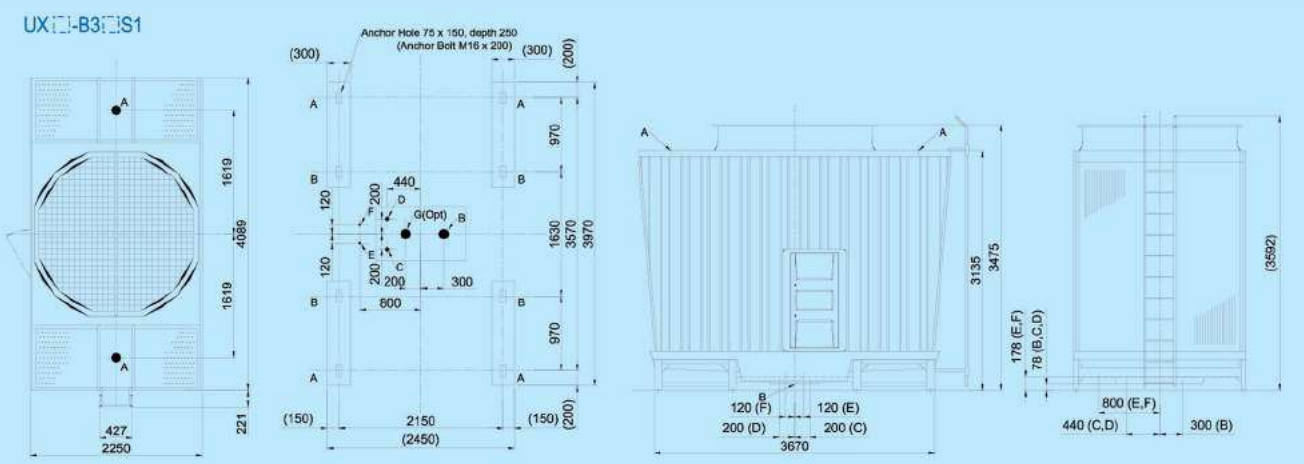

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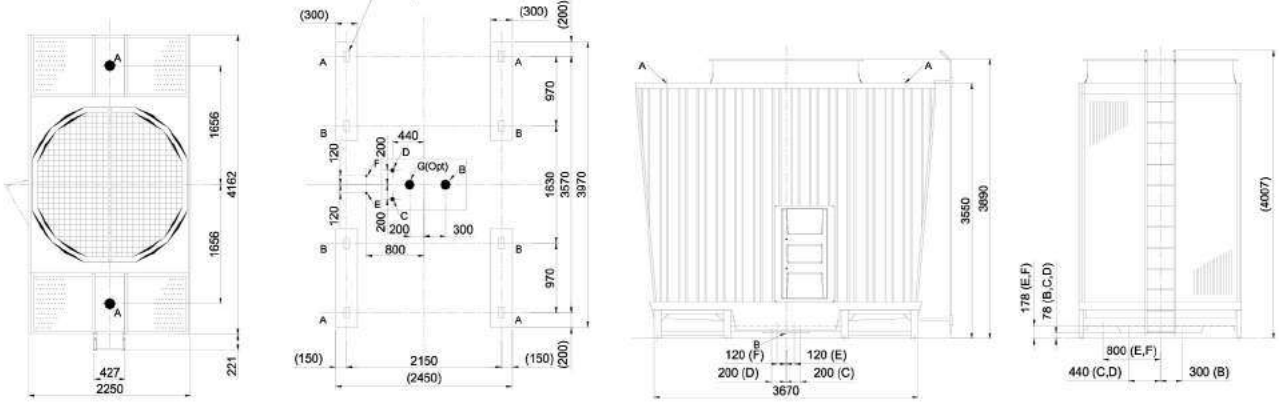
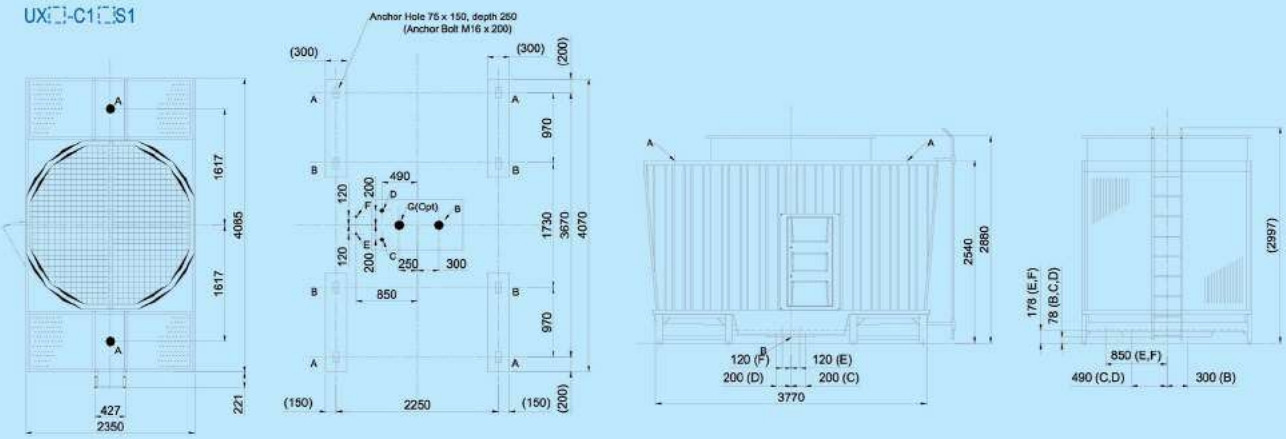
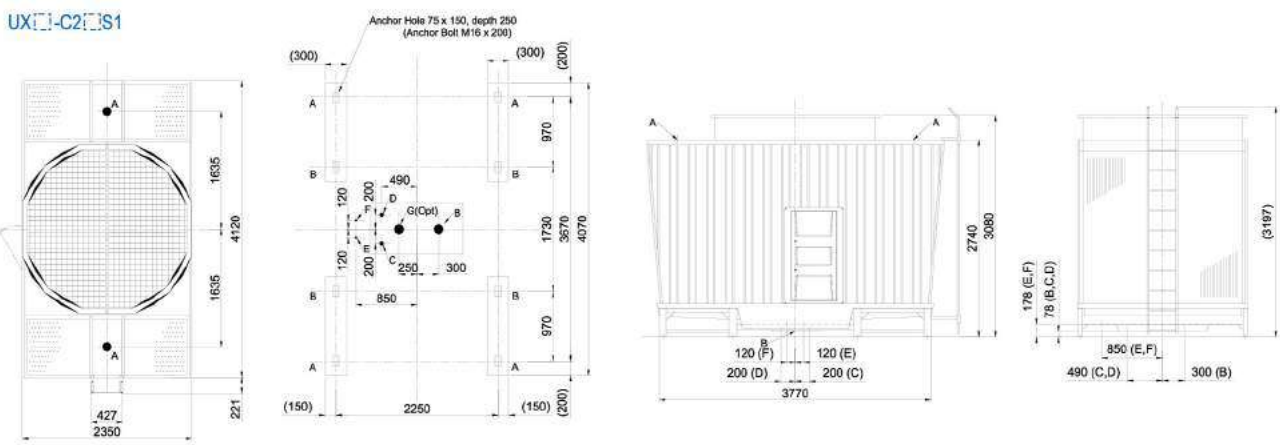


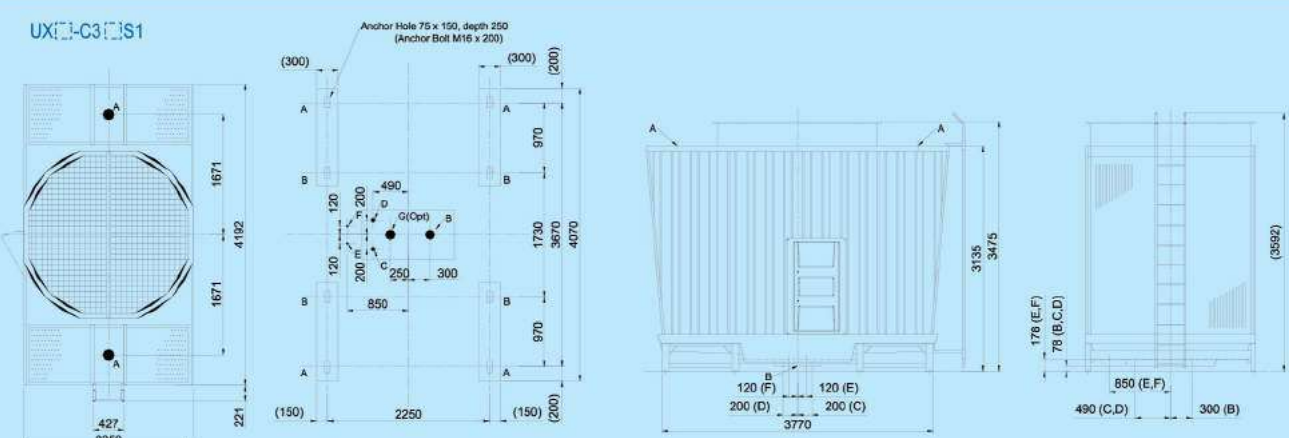
UX□-C1□S1



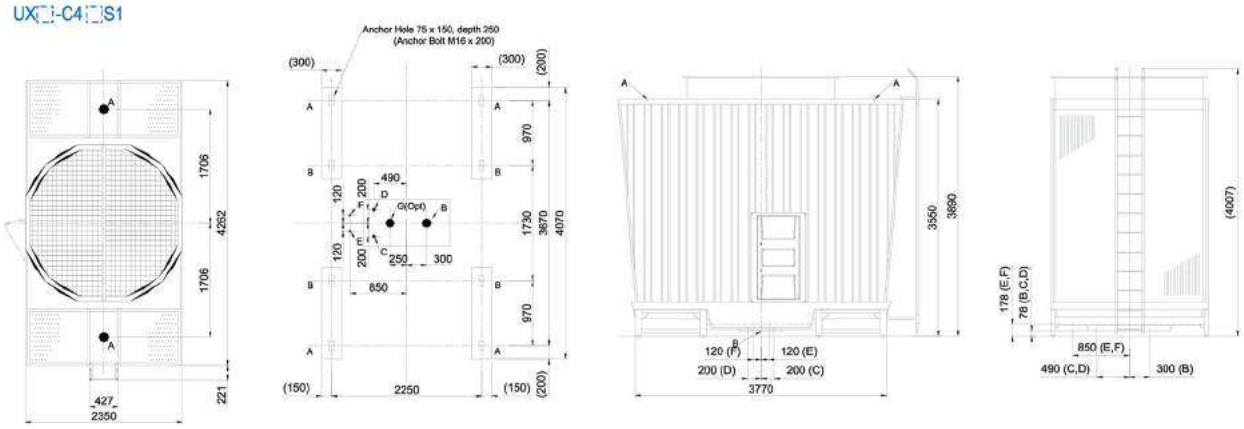
UX□-C2□S1



UX□-C3□S1



UX[ ]-C4[ ]S1



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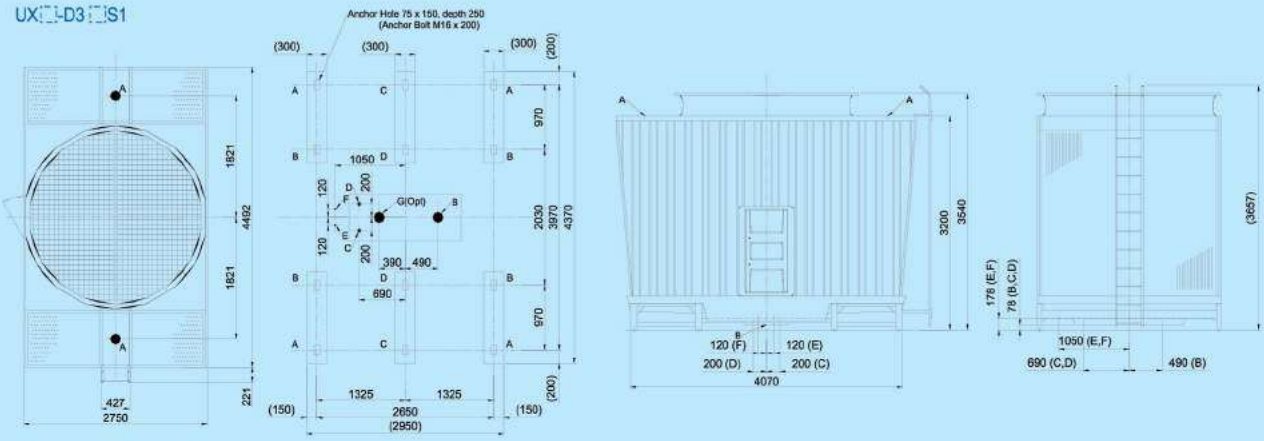

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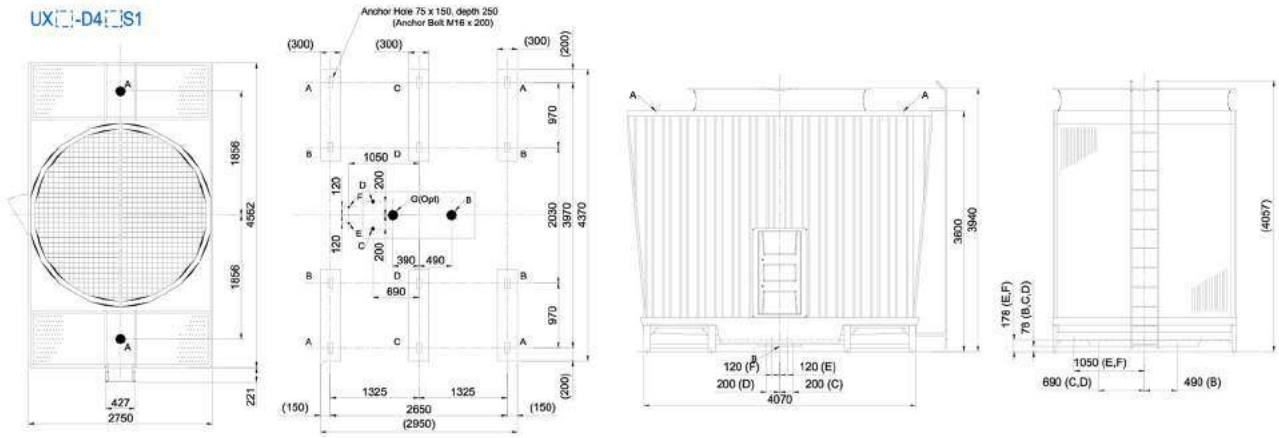
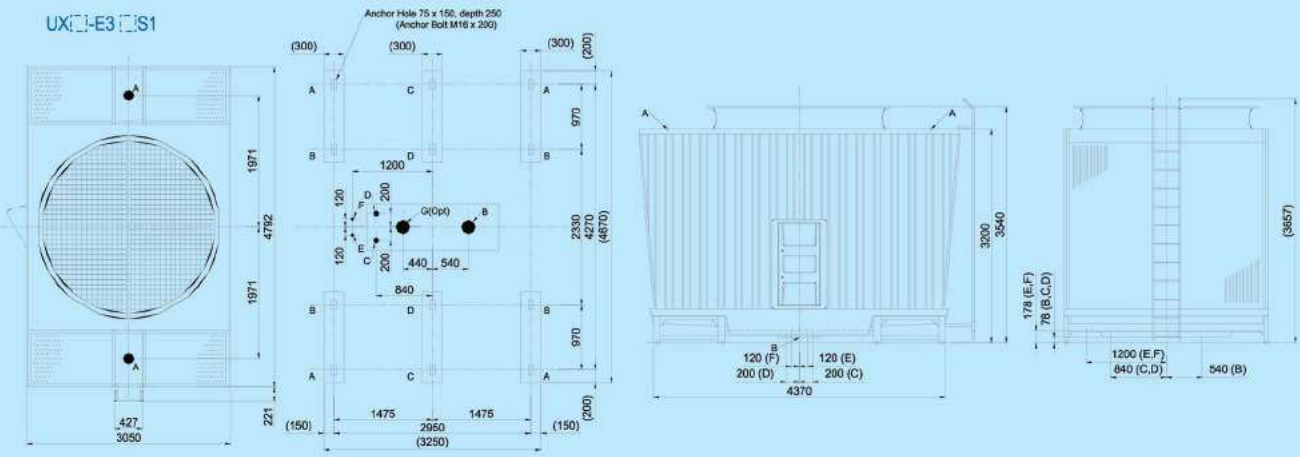
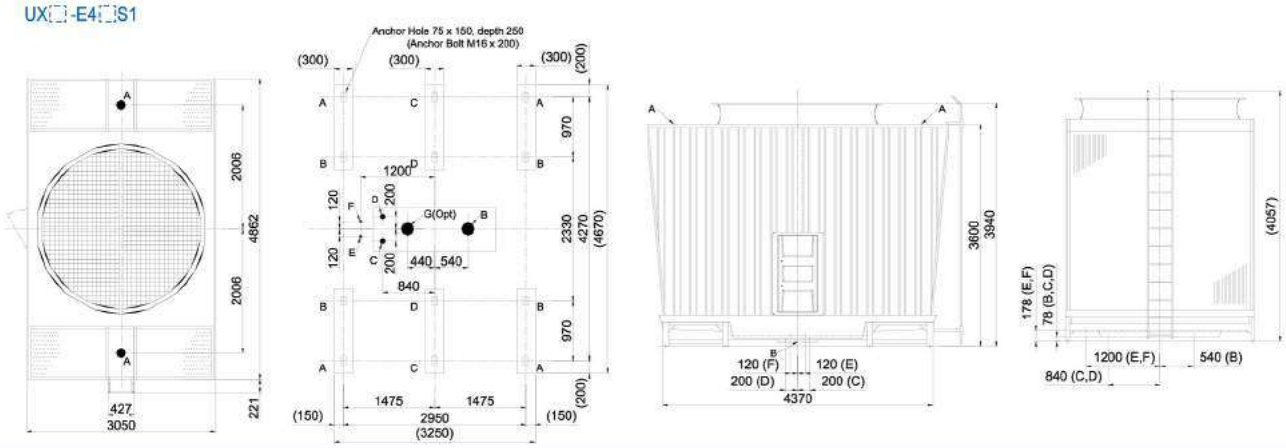


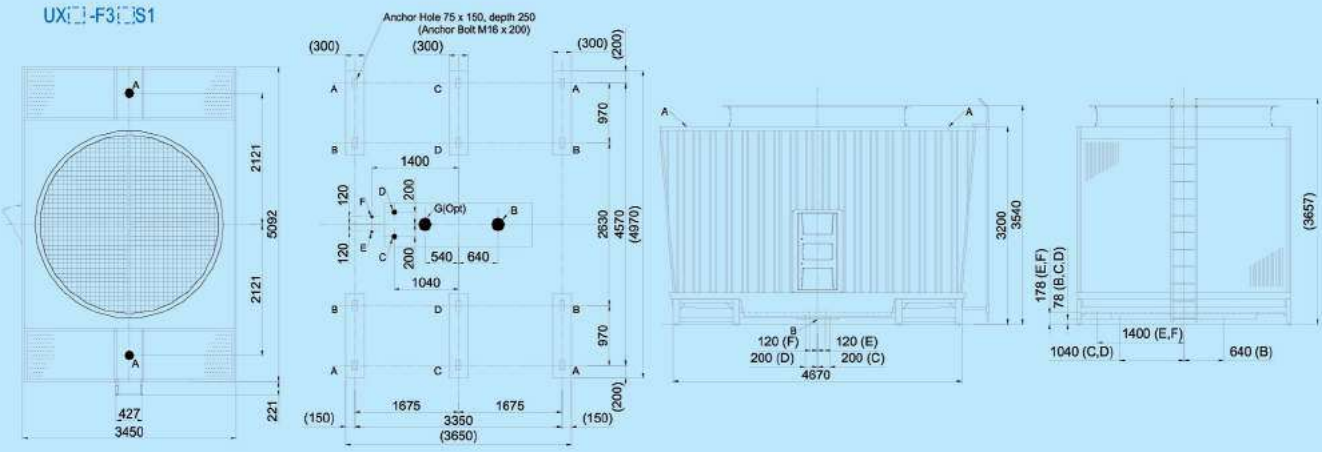
UX[ ]-E3[ ]S1



UX□-E4□S1



UX□-F3□S1



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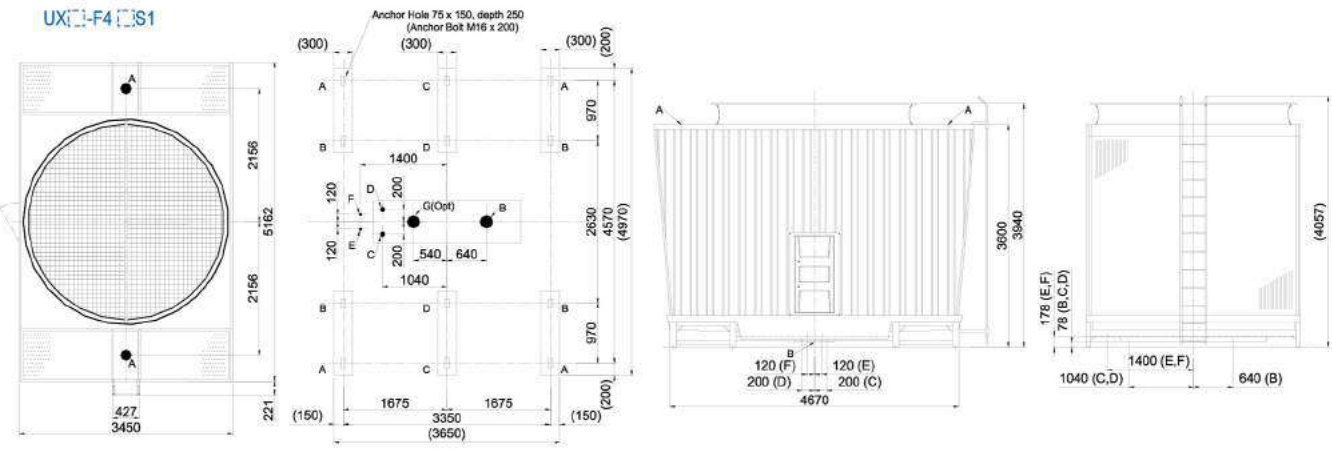
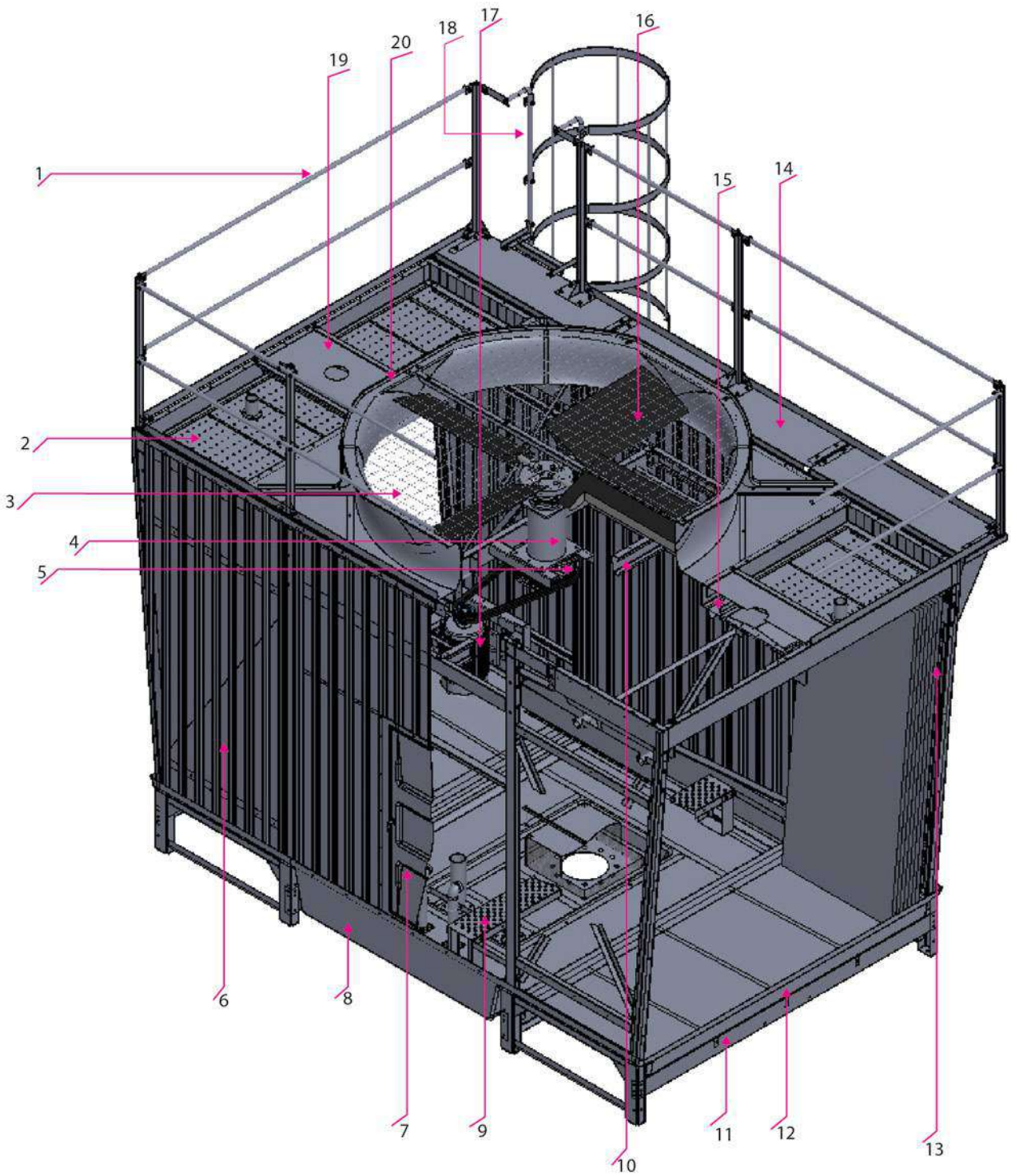


Construction & Materials

	Part	Material
1.	Safety Rail	HDGS
2.	Distribution Basin	HDGS
3.	Fan Guard	HDGS
4.	Fan Bearing Assembly	HDGS
5.	Pulley & V-Belt	-
6.	Outerwall Casing	FRP
7.	Access Door	FRP
8.	Outlet Sump	FRP
9.	Maintenance Walkway	HDGS
10.	Wetted Steel Structure	HDGS

	Part	Material
11.	Non-Wetted Steel Structure	HDGS
12.	Cold Water Basin	FRP
13.	Hanging Type Fills	UPVC
14.	Top Deck	FRP
15.	Scattering Bar	PVC
16.	Airfoil Axial Flow Fan	Aluminium
17.	Totally Enclosed Air Over Motor	-
18.	External Ladder	HDGS
19.	Distribution Box	HDGS
20.	Fan Cylinder	FRP



Engineering Specification

Operating Conditions

Each cooling tower is manufactured to cool _____ liters per second of circulating water (flowrate) from _____ °C entering water temperature (hot water) to _____ °C leaving water temperature (cold water) at _____ °C entering ambient wet bulb temperature. The cooling towers are guaranteed to perform under the specified conditions and its thermal performance shall be rated in accordance to JIS B8609 standards by Japan Cooling Tower Institute (JCI).

Structure

The cooling tower structure shall be constructed from hot dipped zinc galvanized steel (HDGS). Galvanizing process shall be carried out in accordance to ISO1461:1999 standards. The cooling tower casing shall be constructed from FRP (UV-retardant Fiberglass Reinforced Polyester).

Cold Water Basin

The cold water basin shall be constructed in multiple sections and made entirely from UV retardant Fibreglass Reinforced Polyester (FRP). Each cold water basin shall be made of FRP and equipped with a drain outlet for ease of cleaning.

Drive System

The drive system shall comprise of pulleys and V-belts. V-belts shall be fabric-impregnated and tensioned according to manufacturer recommendations.

Fills

Constructed entirely from UV-treated polyvinyl chloride (UPVC) and thermo-vacumm formed with intricate patterns shall facilitate for an even spread of water over the heat transfer surface with cross flow induced draft of air. Drift eliminators and air inlet louvers shall be an integral part of the film type fills. Fills shall be suspended from upper tubular structures and held together by interlocking studs without adhesives.

Mechanical Skid

The mechanical skid shall be constructed of hot dipped zinc galvanized steel (HDGS) and bolted directly onto the inner vertical structures of the cooling tower. Hot dipped zinc galvanised steel (HDGS) fan guard shall be installed above the fan cylinder for added protection to the fan unit.

Motor

The fan motor(s) shall be constructed in a totally enclosed, air over (TEAO) enclosure capable of withstanding up to IP55 and Class F insulation, specifically designed for cooling tower service. The motor shall be located beneath the fan cylinder inside the cooling tower for minimal impact on external noise and vibrations. The motor(s) shall be mounted inside the discharge air stream for effective cooling as required for TEAO enclosed motors.

Water Distribution System

The hot water distribution shall be of open gravity flow and basin shall be constructed from hot dipped zinc galvanized steel (HDGS) without spray nozzles or grommets. Complex arrays of distribution holes shall evenly sprinkle water through natural gravity flow. U-channel bars shall be installed beneath each basin to facilitate the scattering effects of water evenly onto the fill section.

Fan Section

Fans shall be axial flow type with aerofoil aluminum fan blades designed to provide the necessary airflow for heat transfer. Fan blades shall be assembled, balanced and pitched. The fan shall operate inside the fan cylinder, which provides a streamlined air entry and minimum tip clearance for maximum fan efficiency.

Access

Access door constructed of UV retardant Fiberglass Reinforced Polyester (FRP) shall facilitate instant and tool-free entry into the inner sections of the cooling tower for inspection and maintenance works. A maintenance walkway constructed of hot dipped zinc galvanized steel (HDGS) shall be installed above the cold water basin and water level, this walkway shall span between end walls inside the cooling tower. External access ladder constructed of hot dipped zinc galvanized steel (HDGS) shall be installed on the cooling tower exterior to facilitate direct access to the top deck section.

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WARRANTY

Certificate of Warranty

Warranties: Seller warrants that the equipment products sold under this contract shall be free of defects in material and workmanship for a period of a twelve (12) months from the date of equipment startup or eighteen (18) months from the date of shipment, or whichever occurs first. Replacement parts provided by seller under its original equipment warranty obligations are warranted against defects in material and workmanship for a period of twelve (12) months from the date of shipment or until expiration of their original warranty, or whichever is the first to occur. Parts purchased after expiration are warranted against defects in material and workmanship for a period of twelve (12) months from dates of shipment. Written notice of any defects shall be given to Seller immediately upon discovery by Buyer, and shall fully describe the claim defect. Defective parts shall be repaired or replace F.O.B. point of shipment, not provided that inspection by Seller verities the claimed defect (s). This shall be the Buyer's exclusive remedy.

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This warranty does not cover the cost of removing, shipping or reinstalling the equipment. Repairs made without the prior written approval of Seller shall be void all warranties covering material and workmanship. Any descriptions of the product (s) in the contract are for the sole purpose of identification and do not constitute a warranty. In the interest of product improvement, Seller reserves the right to change specification and product design without incurring any liability therefore. The foregoing express warranties or those set forth elsewhere on this document are the only warranties of Seller applicable to the product (s) sold under contract. Seller's warranties do not apply to defects in product (s) for which payment in full has not been received by Seller, and said warranties do not cover normal wear and tear or the erosion, corrosion and / or deterioration of the product (s) from unusual causes. No warranties by Seller shall apply to accessories manufactured by others, in as much as they warranted separately by their respective manufacturers, except as stated above. Buyers assumes liability for and shall bear the costs of compliance with all laws, regulation, codes, standards or ordinances applicable to the location, operation and maintenance of the product (s) and air-conditioning system duct intakes, etc. no representative or agent of Seller is authorized to enlarge upon the express warranties of seller.

Liability / Indemnification: Seller shall not be liable for any damages caused by delay in delivery of the products. Buyer shall not hold harmless and indemnify against Seller from and against all liability, claim losses, damages and expenses (including attorney's fees) for personal injury and property damage arising out of Buyer's improper unloading, handling or use of the product subject to this order, and for Buyer's infringement of another's property rights. The Seller maximum liability from any causes whatsoever, whether in breach of contract, tort (including negligence), strict liability, or otherwise, shall not exceed the contract price. Neither Buyer or Seller shall in any event be liable to the other, whether such liability arises out of breach of contract, tort (including negligence) strict liability or any other cause or form of action, for any consequential, special, indirect or incidental damages, including but not limited to loss of actual or anticipated profits or loss of use arising out of this contract, other than such damages resulting from the willful misconduct of Buyer or Seller.

Past Project Portfolio

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Kuala Lumpur, Malaysia

KAO
Prai, Penang, Malaysia

JKR Waterworks
Sibu, Sarawak, Malaysia

Elna PCB
Prai, Penang, Malaysia

Rubberrex Alliance
Perak, Malaysia

HICOM PEKAN
Pahang, Malaysia

Western Digital
Penang, Malaysia

Mydin Mutiara Rini
Johor, Malaysia

Plexus Manufacturing
Penang, Malaysia

Kompleks
Bukit Jambul, Penang, Malaysia

Cooling tower manufacturing facilities for Nihon Spindle group

Notes

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NihonSpindle

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