

SERIES JN-T

Thermally Adjustable
Jet Nozzle Diffuser

ThermAstute®

PUBLICATION

AUGUST 2026



Features

- Jet air stream distribution
- Directional adjustment
- Long throw capacity
- High air volume capacity
- Low noise level
- Aluminium construction



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SERIES JN-T

Thermally Adjustable Jet Nozzle Diffuser

Introduction

Discover the future of climate control with our thermally adjustable jet nozzle diffuser. No electricity, just the ingenious memory alloy components that seamlessly adapt to the environment.

Offering the same benefits as the existing JN, the JN-T is able to deliver high volumes of air in both heating and cooling scenarios and can change dynamically between each mode without the need for any manual or actuator adjustment.

Heating mode: automatically projects air 30° down to limit the effects of stratification.

Cooling mode: automatically projects air 30° up to minimise cold air dumping. This adjustment provides better air distribution in both scenarios.

The heating position is achieved when incoming air temperatures exceed 25°C. The cooling position is achieved when incoming air temperatures are below 22°C.

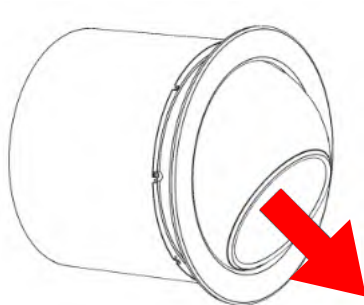
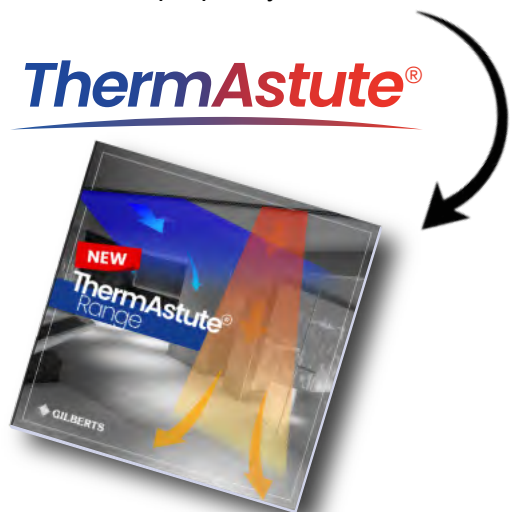
To ensure maximum efficiency, it is recommended that the heating/cooling strategy falls 2°C outside these boundaries, i.e. cooling/isothermal below 20°C and heating above 27°C.

In cooling/isothermal mode, the supply air temperature must be below 20°C to achieve full adjustment. In heating mode, supply air temperature must be above 27°C to achieve full adjustment.

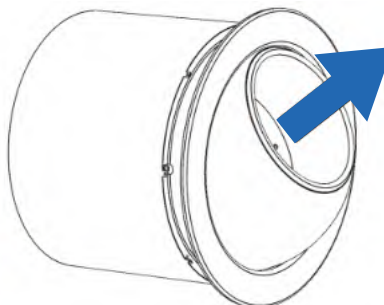
Part of our **ThermAstute®** range, the JN-T is just one example of our intelligent thermal products that sense supply air temperature and adapt quickly. Ask our technical team about the full **ThermAstute®** range.

Features

- Jet air stream distribution
- Directional adjustment
- Long throw capacity
- High air volume capacity
- Low noise level
- Aluminium construction



30° downward
HEATING MODE



30° upward
COOLING MODE

SERIES JN-T

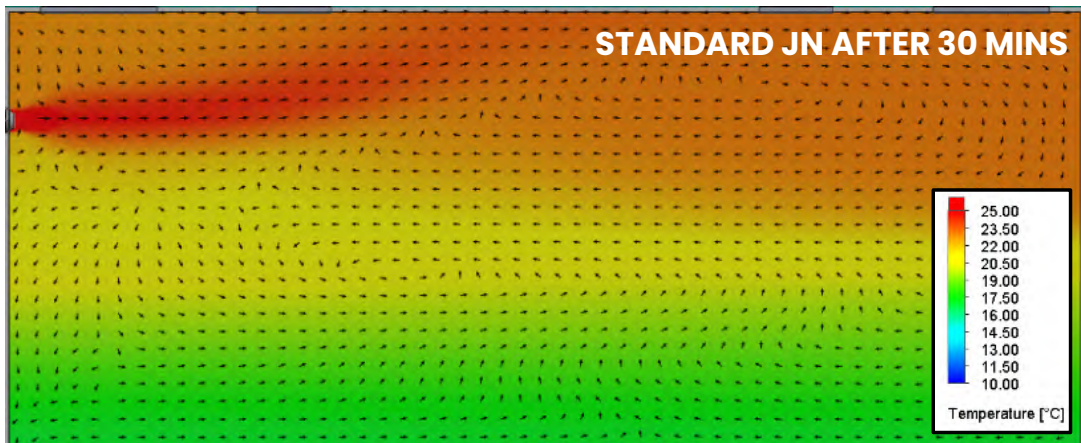
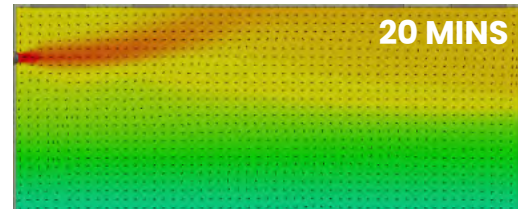
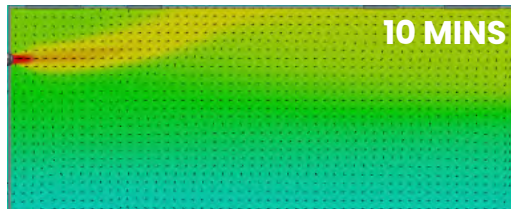
Thermally Adjustable Jet Nozzle Diffuser

Heating Illustration

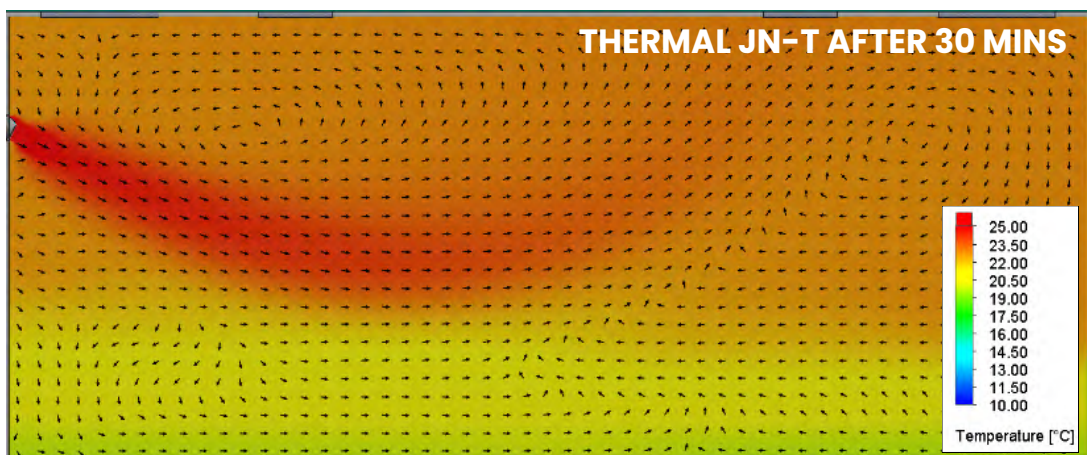
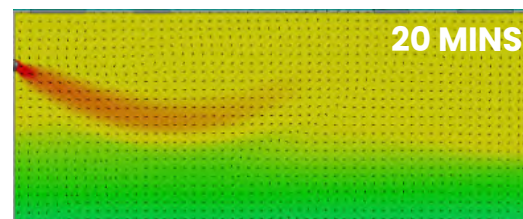
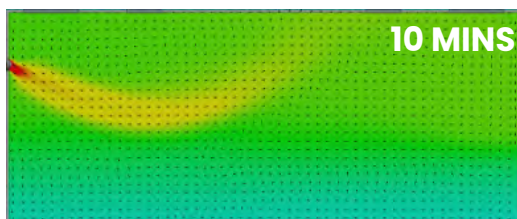
Here is an example of the 400 JN versus JN-T heating based on +15°C Delta T:

- 30°C [275 l/s] inlet air temperature
- 15°C initial ambient temperature

STANDARD JN:



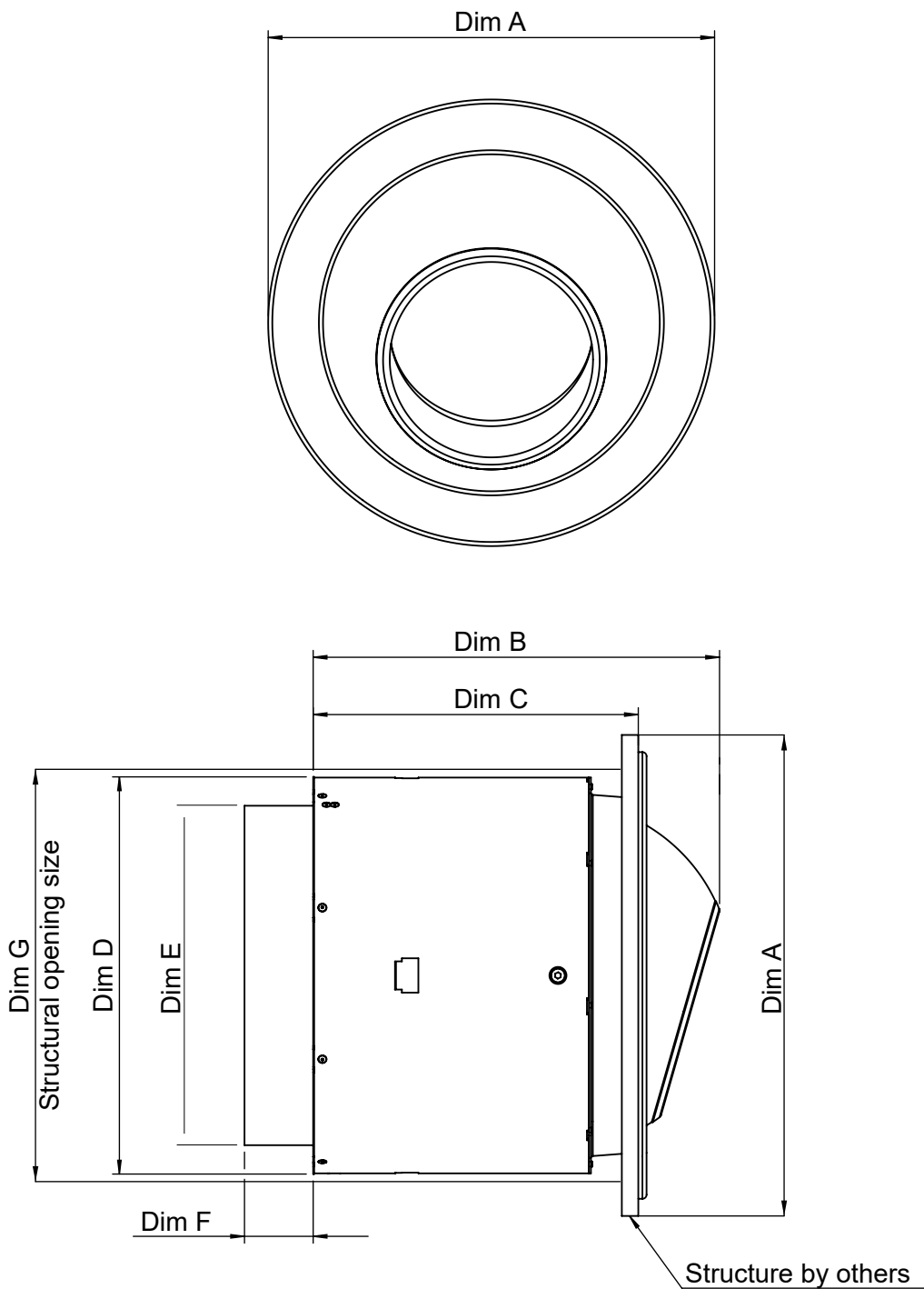
NEW JN-T:



SERIES JN-T

Thermally Adjustable Jet Nozzle Diffuser

Dimensional Data



Size [mm]	Dim A	Dim B	Dim C	Dim D	Dim E	Dim F	Dim G
250	325	296	237	289	247	50	300
400	512	518	393	453	397	50	466

SERIES JN-T

Thermally Adjustable Jet Nozzle Diffuser

Isothermal

Throw

Data

Size 250

Vol in m³/s	Throw in metres								P.S. [Pa]	Sound [dBA]
	3	6	9	12	15	18	21	24		
	Residual velocity [m/s]									
0.025	0.29	0.16	0.12	0.09	0.07	0.05	0.04	0.02	-	<20
0.045	0.52	0.29	0.21	0.16	0.13	0.10	0.07	0.04	3	<20
0.065	0.75	0.43	0.31	0.23	0.19	0.14	0.10	0.06	7	<20
0.085	0.98	0.56	0.40	0.31	0.24	0.19	0.13	0.08	13	<20
0.105	1.21	0.69	0.49	0.38	0.30	0.23	0.16	0.10	21	<20
0.125	1.44	0.82	0.59	0.45	0.36	0.27	0.19	0.11	31	<20
0.145	1.68	0.95	0.68	0.52	0.41	0.32	0.22	0.13	41	<20
0.165	1.91	1.08	0.78	0.59	0.47	0.36	0.25	0.15	54	25
0.185	2.14	1.21	0.87	0.67	0.53	0.40	0.28	0.17	66	30
0.205	2.37	1.34	0.97	0.74	0.59	0.45	0.32	0.19	82	35
0.225	2.60	1.47	1.06	0.81	0.64	0.49	0.35	0.20	98	36
0.245	2.83	1.60	1.16	0.88	0.70	0.53	0.38	0.22	118	38
0.265	3.06	1.74	1.25	0.96	0.76	0.58	0.41	0.24	140	38
0.285	3.29	1.87	1.34	1.03	0.81	0.62	0.44	0.26	160	39
0.305	3.52	2.00	1.44	1.10	0.87	0.66	0.47	0.28	172	40

Size 400

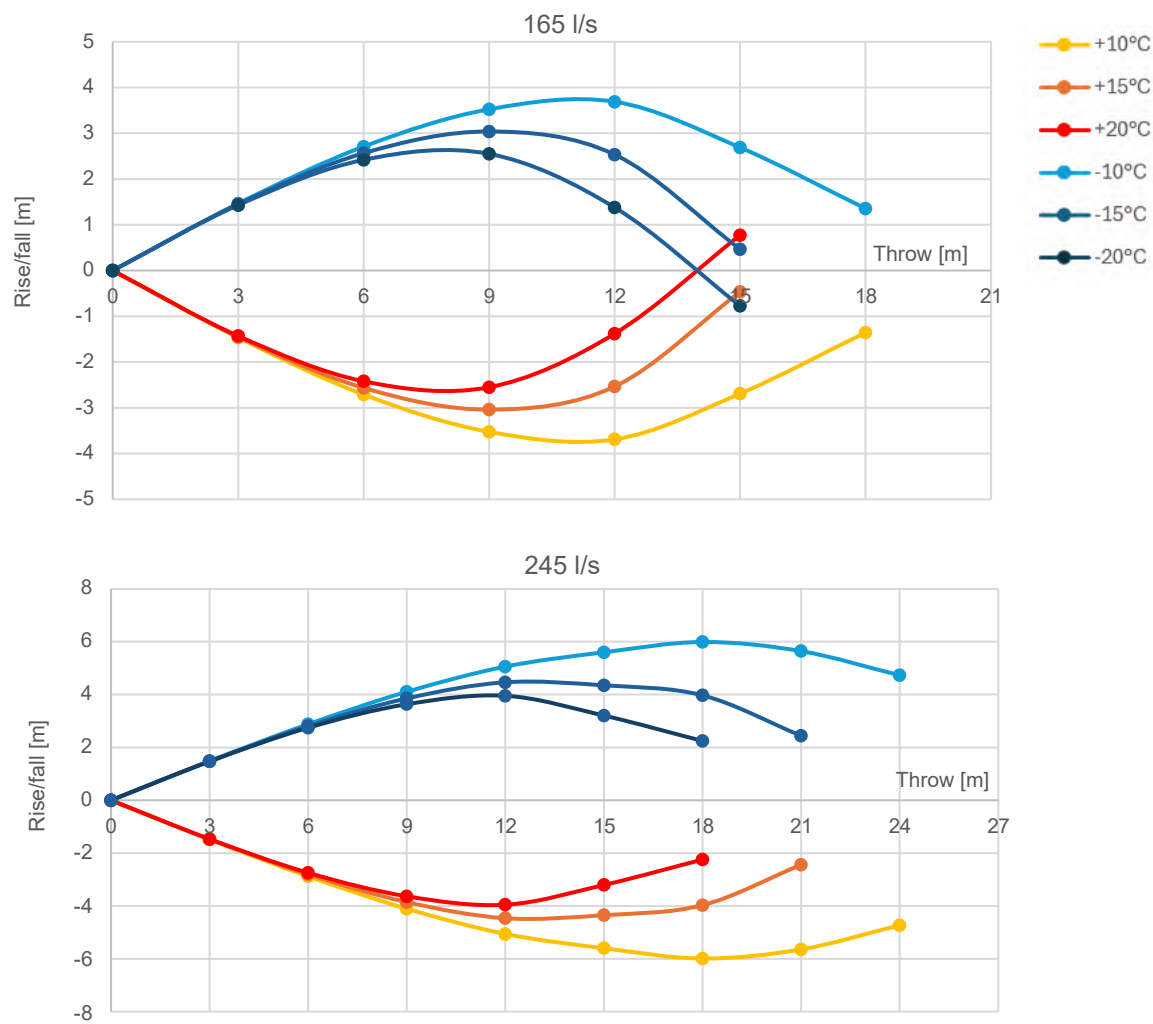
Vol in m³/s	Throw in metres								P.S. [Pa]	Sound [dBA]
	3	6	9	12	15	18	21	24		
	Residual velocity [m/s]									
0.050	0.35	0.19	0.14	0.11	0.09	0.07	0.05	0.03	-	<20
0.075	0.53	0.29	0.21	0.16	0.13	0.10	0.07	0.04	2	<20
0.100	0.70	0.39	0.28	0.22	0.17	0.13	0.09	0.05	3	<20
0.125	0.88	0.49	0.35	0.27	0.21	0.16	0.11	0.07	5	<20
0.150	1.05	0.58	0.42	0.32	0.26	0.20	0.14	0.08	7	<20
0.175	1.23	0.68	0.49	0.38	0.30	0.23	0.16	0.09	10	<20
0.200	1.40	0.78	0.56	0.43	0.34	0.26	0.18	0.11	13	<20
0.225	1.58	0.87	0.63	0.49	0.39	0.29	0.21	0.12	16	<20
0.250	1.75	0.97	0.70	0.54	0.43	0.33	0.23	0.13	20	22
0.275	1.92	1.07	0.77	0.59	0.47	0.36	0.25	0.15	24	25
0.300	2.10	1.17	0.84	0.65	0.51	0.39	0.27	0.16	29	28
0.325	2.27	1.26	0.91	0.70	0.56	0.42	0.30	0.17	34	30
0.350	2.45	1.36	0.98	0.76	0.60	0.46	0.32	0.19	39	31
0.375	2.62	1.46	1.06	0.81	0.64	0.49	0.34	0.20	45	32
0.400	2.80	1.55	1.13	0.87	0.69	0.52	0.36	0.21	52	33
0.425	2.97	1.65	1.20	0.92	0.73	0.55	0.39	0.23	58	35
0.450	3.15	1.75	1.27	0.97	0.77	0.59	0.41	0.24	65	36
0.475	3.32	1.85	1.34	1.03	0.82	0.62	0.43	0.25	72	37
0.500	3.50	1.94	1.41	1.08	0.86	0.65	0.46	0.27	80	38
0.525	3.67	2.04	1.48	1.14	0.90	0.68	0.48	0.28	88	39
0.550	3.85	2.14	1.55	1.19	0.94	0.72	0.50	0.29	97	40
0.575	4.02	2.23	1.62	1.24	0.99	0.75	0.52	0.31	105	41
0.600	4.20	2.33	1.69	1.30	1.03	0.78	0.55	0.32	115	42

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Thermally Adjustable Jet Nozzle Diffuser

Rise & Fall
Graphs
[Size 250]

The graphs below show the relative jet height under the stated conditions with the nozzle positioned for either heating or cooling. For complete performance data charts, please refer to the following page.



SERIES JN-T

Thermally Adjustable Jet Nozzle Diffuser

Rise & Fall Charts

The values in the table show vertical jet movement in millimetres (mm).
Use the direction guide below to interpret the values for the selected operating mode.

	Fall on cooling. Rise on heating.
	Rise on cooling. Fall on heating.

Size 250

Volume [l/s]	Temperature differential [°C]	Throw in metres							
		3	6	9	12	15	18	21	24
25	10	5							
	15	755							
	20	1505							
45	10	1040	690						
	15	810	2540						
	20	575	4385						
65	10	1280	1220	1500	1115				
	15	1170	335	1500					
	20	1060	555	4500					
85	10	1345	1765	350	950				
	15	1270	1155	1730					
	20	1195	540	3830					
105	10	1415	2315	2195	535				
	15	1370	1975	1040	2195				
	20	1330	1635	110					
125	10	1435	2475	2745	1835	540			
	15	1400	2220	1855	245				
	20	1370	1960	985	830				
145	10	1455	2640	3295	3140	1615	505		
	15	1435	2465	2690	1710	1180			
	20	1410	2285	2085	275				
165	10	1465	2710	3525	3690	2690	1355		
	15	1450	2565	3040	2535	465			
	20	1430	2420	2550	1380	775			
185	10	1475	2780	3760	4240	3765	3215	1240	
	15	1460	2670	3390	3365	2050	250		
	20	1445	2560	3015	2485	335			
205	10	1480	2815	3880	4545	4320	4175	2765	
	15	1465	2725	3570	3790	2885	1690		
	20	1460	2630	3255	3055	1445	460		
225	10	1480	2850	4000	4810	4875	5135	4285	2705
	15	1470	2775	3750	4220	3720	3135	1110	
	20	1465	2705	3495	3625	2560	1130		
245	10	1485	2880	4105	5060	5370	5990	5645	4730
	15	1475	2805	3855	4465	4205	3970	2440	
	20	1470	2745	3635	3955	3205	2245		
265	10	1490	2915	4210	5315	5865	6845	7000	6755
	15	1480	2840	3960	4715	4690	4810	3770	
	20	1470	2785	3775	4285	3850	3365	2340	
285	10	1490	2920	4220	5330	5900	6900	7090	6895
	15	1480	2860	4025	4870	5000	5345	4620	4225
	20	1475	2810	3865	4495	4260	4075	3035	

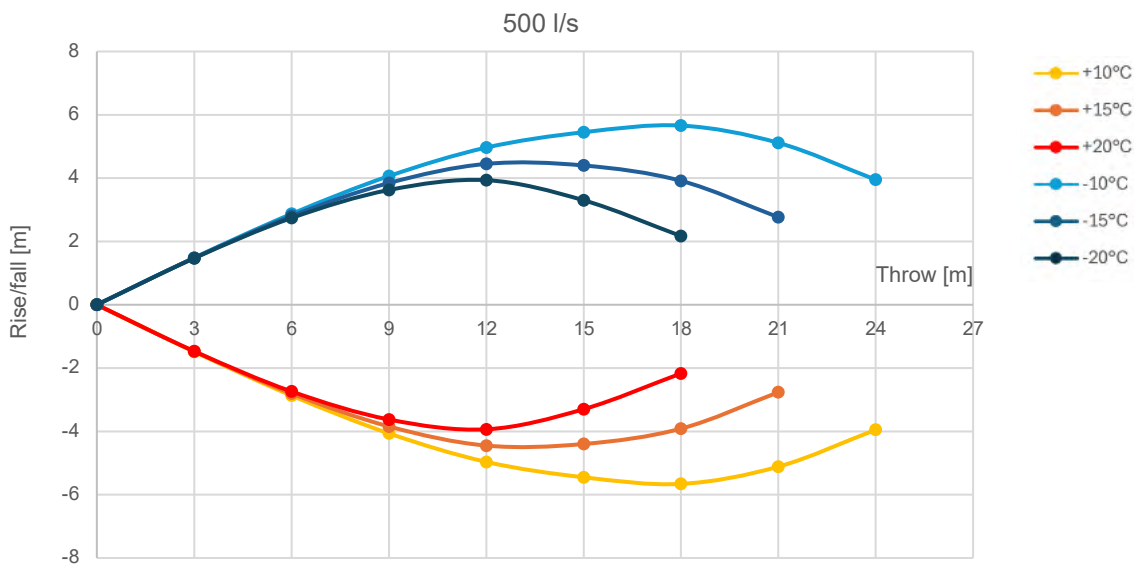
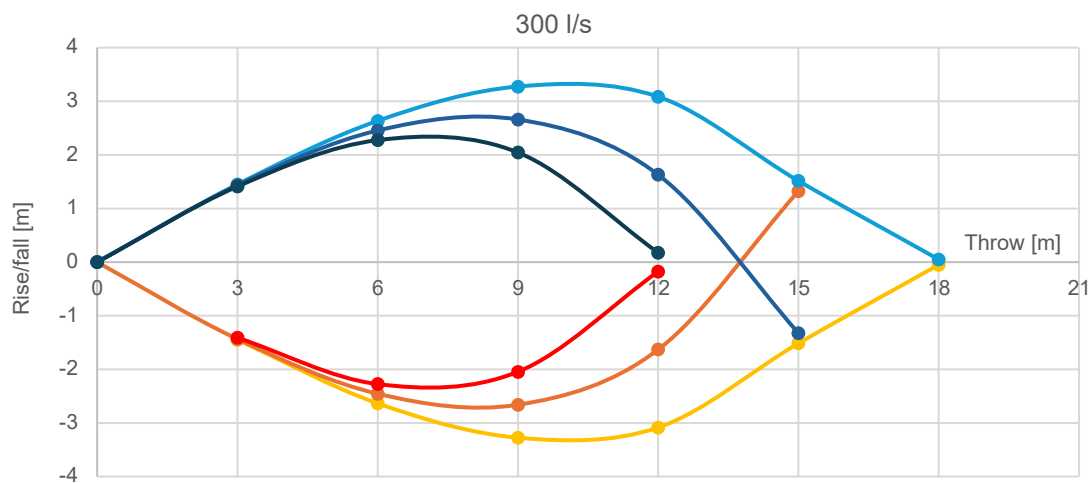
See page 6
for example.

SERIES JN-T

Thermally Adjustable Jet Nozzle Diffuser

Rise & Fall
Graphs
[Size 400]

The graphs below show the relative jet height under the stated conditions with the nozzle positioned for either heating or cooling. For complete performance data charts, please refer to the following page.



SERIES JN-T

Thermally Adjustable Jet Nozzle Diffuser

Rise & Fall Charts

The values in the table show vertical jet movement in millimetres (mm).
Use the direction guide below to interpret the values for the selected operating mode.

	Fall on cooling. Rise on heating.
	Rise on cooling. Fall on heating.

Size 400

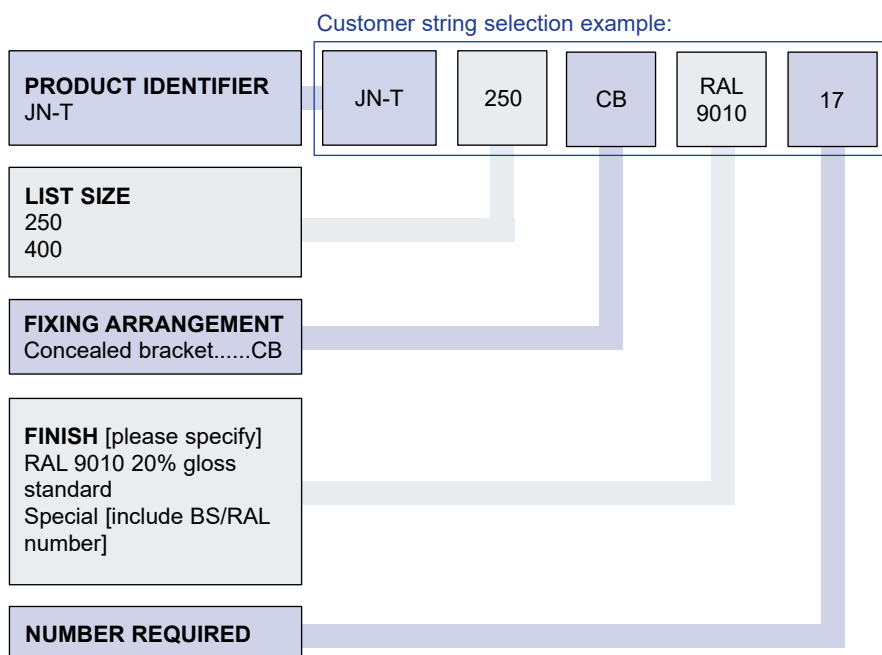
Volume [l/s]	Temperature differential [°C]	Throw in metres							
		3	6	9	12	15	18	21	24
100	10	1100	200						
	15	900	1815						
	20	700	3415						
150	10	1320	1575	310					
	15	1230	855	2740					
	20	1145	155	5110					
200	10	1395	2160	1655	720				
	15	1340	1740	245					
	20	1290	1320	1175					
250	10	1430	2470	2715	1770	1060			
	15	1400	2205	1825	345				
	20	1370	1945	935	1745				
300	10	1450	2635	3275	3085	1515	50		
	15	1435	2455	2660	1630	1325			
	20	1410	2275	2045	175				
350	10	1465	2740	3615	3905	3110	2085		
	15	1450	2605	3175	2860	1065			
	20	1435	2475	2735	1810	980			
400	10	1475	2800	3825	4395	4070	3740	2065	
	15	1460	2700	3485	3595	2500	1030		
	20	1450	2600	3145	2795	915			
450	10	1480	2840	3965	4735	4725	4875	3870	
	15	1470	2760	3700	4100	3490	2735		
	20	1460	2685	3430	3465	2250	600		
500	10	1485	2870	4065	4965	5180	5660	5115	3950
	15	1475	2805	3845	4450	4175	3915	2765	
	20	1470	2740	3625	3935	3165	2170		
550	10	1490	2895	4140	5145	5530	6270	6085	5390
	15	1480	2840	3960	4720	4700	4830	3800	
	20	1475	2785	3780	4295	3865	3390	1515	

See page 8
for example.

SERIES JN-T

Thermally Adjustable Jet Nozzle Diffuser

Ordering Specification



Finish

Standard finish: Polyester powder coat white RAL 9010 20% gloss.
Special finish: PPC to stock BS or RAL colour.

Size Range

Available in sizes: 250mm and 400mm diameters.

GILBERTS

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