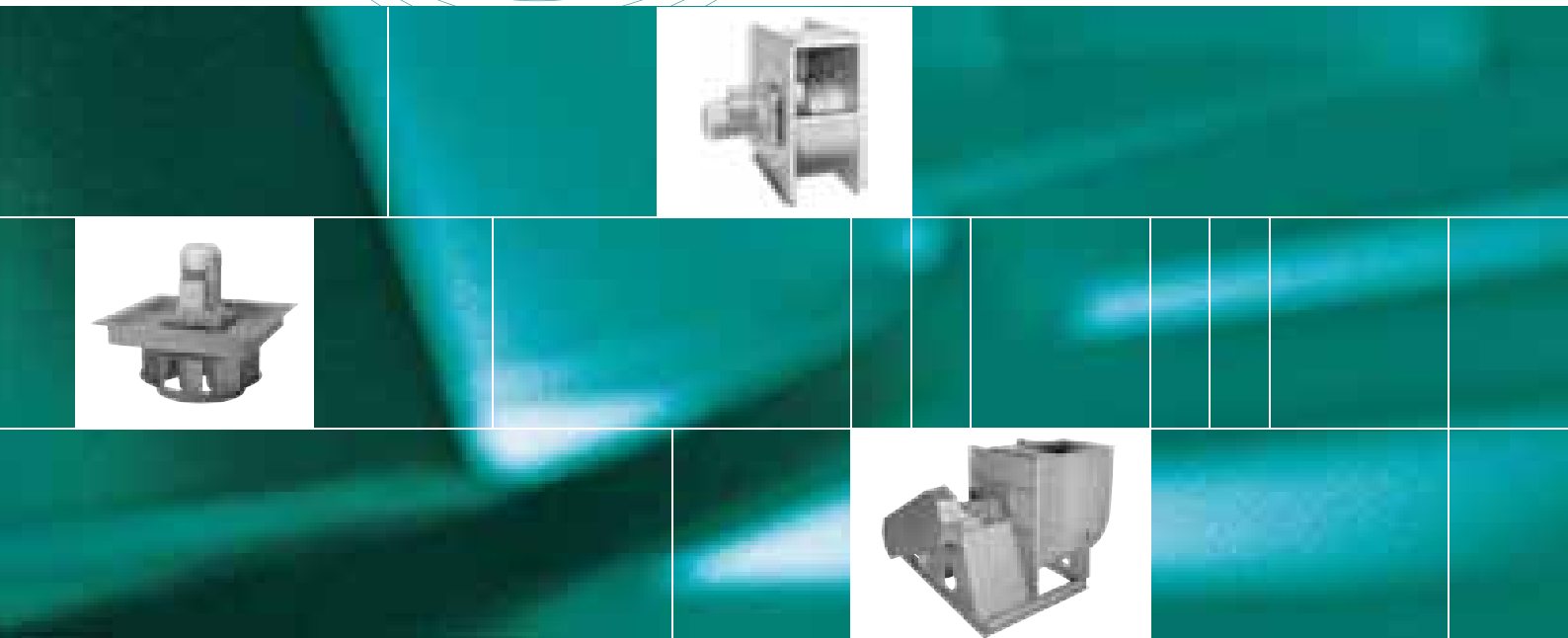


Industrial Process Fans
with or without housing
with direct drive or belt drive

Issue 1



Nicotra Gebhardt – a strong partner

With more than 50 years of experience manufacturing fans, more than 1000 employees, and the most extensive product line on the market, we are among the most significant manufacturers of centrifugal fans.

Production facilities, subsidiaries, and representatives around the world are a prerequisite for close partnerships and guarantee proximity to customers.

Our own intensive research and development organization, modern production, short response times, and fast and competent service have always been the important pillars of our success.



Use of process air fans

Process air fans are an important component of machines and plants. In these applications they assure functions that would not be possible without defined air transport. Of these specially developed, robust fans, there are several standard ranges and a number of customer-specific solutions.

Examples of ventilation technology processes

- Cooling *of generators...*
- Drying *agricultural products...*
- Ventilating *composting plants ...*
- Extracting *contaminated air from paint systems...*
- Circulating *hot air in industrial furnaces...*

Competent, fast, flexible

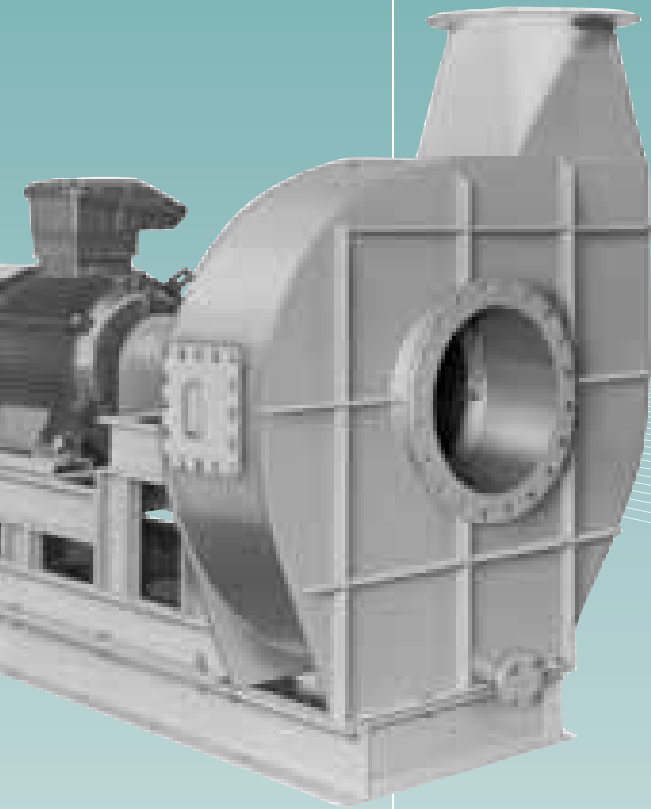
For more than 15 years we have been successfully active in the field of process air technology.

Specialists brought together in a separate business unit stand for competence, speed, and flexibility.

For example, as a partner for machine and plant engineering, with our fan solutions we are successful in the following industries:

- Printing and paper technology
- Dedusting engineering
- Rubber and plastic machines
- Industrial furnace construction
- Compressors
- Machine motors, steam boilers, and firing systems
- Locomotives and rail cars
- Machines for the food industry
- Surface technology
- Cleaning machines
- Special machine engineering
- Textile machines
- Drying technology
- Wind turbines

Solutions tailored to your requirements



Our products stand for the highest level of quality and reliability. The standard solutions can be easily configured with our electronic proSELECTA II selection program. You get complete documentation with data, dimensions, and prices. Moreover we can offer cost effective, modifications tailored to your needs.

Our customers value the solution competence of our technicians. Our technicians support you in selecting the suitable fans and with engineering with the objective of ensuring optimal function, long service life, and low maintenance requirements at minimum costs. In this regard the level of consulting competence extends far beyond the usual level and also includes areas such as...

- The technical flow integration of the fan in the machine
- Minimization of noise emission
- Minimum energy consumption
- Vibration considerations
- Solutions where installation space is at a premium

Customer-specific process air fans

In addition to the broad line of standardised centrifugal fans for ventilation and air-conditioning technology and process air technology, as well as the many variants that can be generated with our product line, Nicotra Gebhardt also has years of experience in the area of customer-specific fan solutions. If the requirement is appropriate even totally new developments are possible.

More in this regard on page 18 and 19 ...



Einfach und exakt auslegen mit proSELECTA II

This brochure is designed to provide you with an overview of the process air fan product line, enable you to make pre-selections, and to supply an initial basis for planning. To precisely present all possibilities, technical details, and combinations would exceed the scope of this brochure.

With our proSELECTA II selection program, available at www.nicotra-gebhardt.com you can configure your fans on your own. Call us now to release access to this program. Naturally we can also configure fans for you.

We would be pleased to advise you: Phone +49 7942/101224

Industrial Process Fans with housing and direct drive

P2M

- **Spiral housing**
Robust welded construction
Housing positions in 90° increments
Individual install position
Different levels of tightness
Suction-side connection DIN 24154-R4
Pressure-side connection DIN 24158-R4
- **Centrifugal impeller**
Impeller diameter 280 to 900 mm
Backward-curved blades
Welded
Dust-repellent
- **Motor**
Standard motor, B5 mounting
Maximum motor size 200
- **Materials**
Coated steel
Hot-dip galvanised
Stainless steel 1.4307
Stainless steel 1.4571 on request

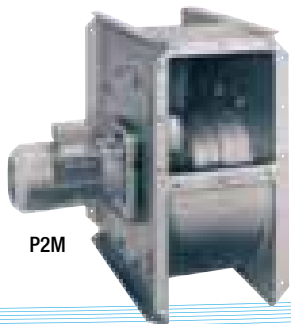
P4M / P4K

- **Spiral housing**
Robust welded construction
Housing positions in 45° increments
Different levels of tightness
Suction-side connection DIN 24154-R4
Pressure-side connection DIN 24158-R4
- **Centrifugal impeller**
Impeller diameter 1000 to 1600 mm
Backward-curved blades
Welded Dust-repellent
- **Motor**
Standard motor, B3 mounting
Maximum motor size 315
P4K: For motor size 280 and 315 also with coupling between motor and impeller, type P4K
- **Materials**
Coated steel
Hot-dip galvanised
Stainless steel 1.4307
Stainless steel 1.4571 on request

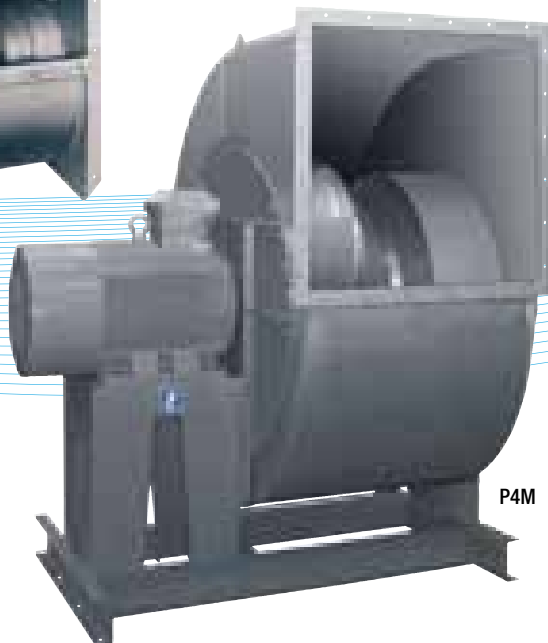
Industrial Process Fans with housing and belt drive

P4R

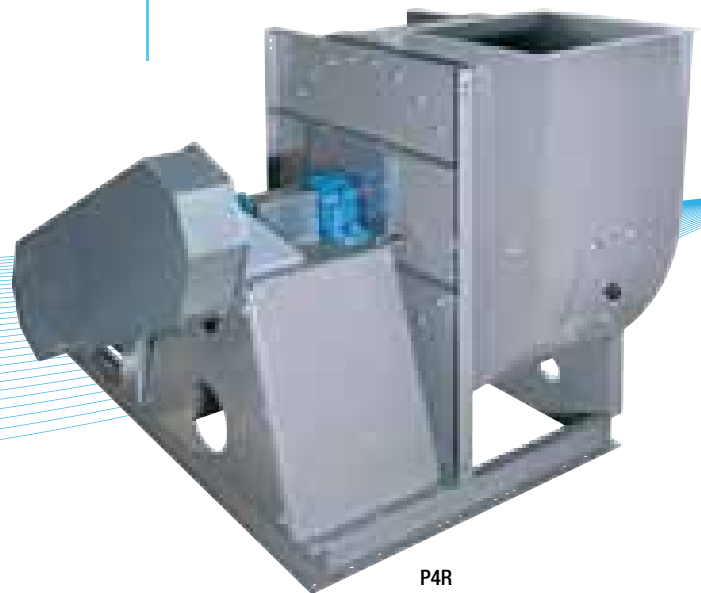
- **Spiral housing**
Robust welded construction
Housing positions in 45° increments
Different levels of tightness
Suction-side connection in accordance with DIN 24154-R4
Pressure-side connection in accordance with DIN 24158-R4
Compact subconstruction with bearing block, bearing, base frame and motor clamp fixture
- **Centrifugal impeller**
Diameter 450 to 1600 mm
Backward-curved blades
Welded
Dust-repellent
- **Motor**
Standard motor, B3 mounting
Maximum motor size 315
- **Materials**
Coated steel
Hot-dip galvanised
Stainless steel 1.4307
Stainless steel 1.4571 on request



P2M



P4M



P4R

- **Displacement medium**
Versions for displacement medium temperatures from -20°C up to +300°C
- **ATEX**
Category 2 and 3; gas and dust
- **Extensive range of accessories**

- **Displacement medium**
Versions for displacement medium temperatures from -20°C up to +300°C
- **ATEX**
Category 2 and 3; gas and dust
- **Extensive range of accessories**

- **Displacement medium**
Versions for displacement medium temperatures from -20°C up to +300°C
- **ATEX**
Category 2 and 3; gas and dust
- **Extensive range of accessories**

- Robust industrial versions
- Long service life, easy to maintain
- High efficiency, quiet operation
- Custom solutions at series production prices

- Quality is certified and assured in accordance with ISO 9001
- Technical data measured as specified in DIN 24 163
- Accuracy class 2 in accordance with DIN 24 166
- 3D drawings for planning

Industrial Process Fans without housing and direct drive

Q2M

- **Built-in system**

Flat mounting plate
Mounting frame
thermlock50 Insulation
Inlet cone loose or attached

- **Centrifugal impeller**

Diameter 280 to 1,400 mm
Backward-curved blades
Welded
Dust-repellent

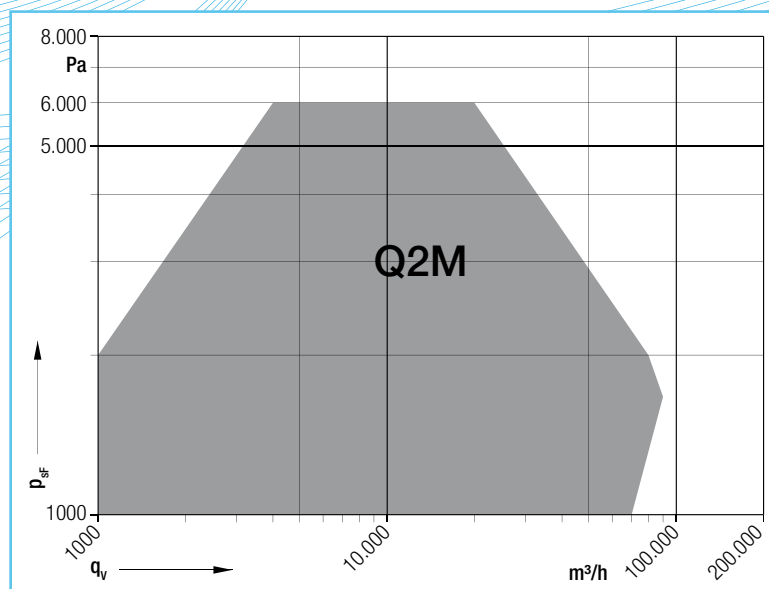
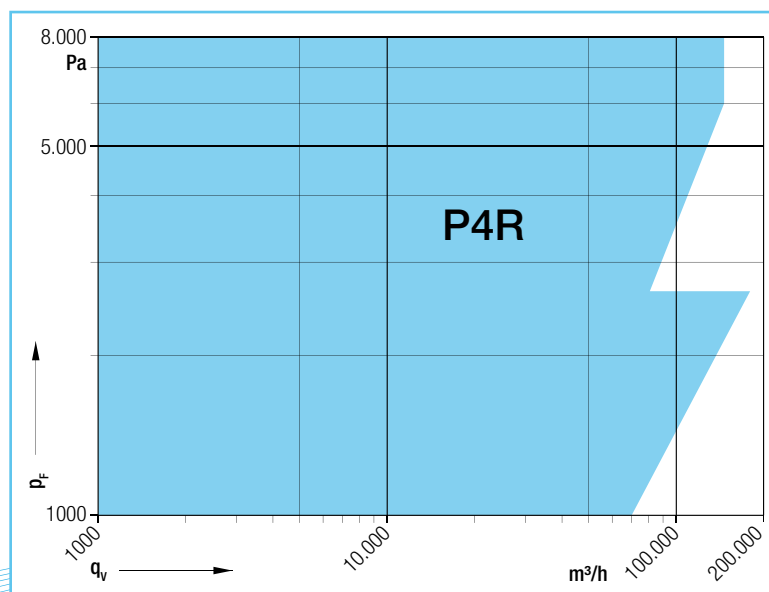
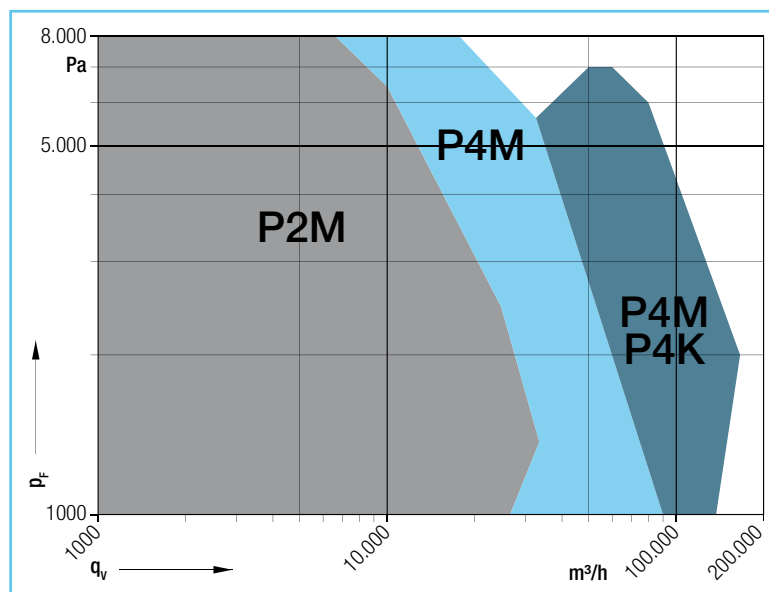
- **Motor**

Standard motor, B5 mounting to size 180
Standard motor, B3 mounting from size 200
Maximum motor size 315

- **Materials**

Coated steel
Hot-dip galvanised
Stainless steel 1.4307
Stainless steel 1.4571 on request

thermlock50



- **Displacement medium**

Versions for displacement medium temperatures
from -20°C up to +500°C
Highly efficient thermal insulation *thermlock50*

- **ATEX**

prepared for Category 2 and 3; gas and dust

- **Extensive range of accessories**

P2M / P4M / P4K

Industrial Process Fans
with housing and direct drive

Pre-Selection																		
Pa	Einfach und exakt auslegen mit <i>proSELECTA II</i> 																	
			■ = P2M ■ = P4M															
11200																		
10000																		
9000																		
8000			M8F2L	M8F2L	M8F2N	M8F2N	M7F2P	M7F2P	M7B2Q	M6B2R	M6B2R	M5B2T	N5M2W	N5M2W	N5M2W	N5M2W	N5F2X	N5F2X
			7,5-2	7,5-2	11-2	11-2	15-2	15-2	18,5-2	22-2	22-2	30-2	45-2	45-2	45-2	45-2	55-2	55-2
7100			M8M2K	M8M2L	M8M2L	M8M2L	M7M2N	M7M2P	M6F2Q	M6F2R	M6F2R	M6F2R	M5B2T	M5B2T	N5M2W	N5M2W	N5M2W	N5M2W
			5,5-2	7,5-2	7,5-2	7,51-2	11-2	15-2	18,5-2	22-2	22-2	22-2	30-2	30-2	45-2	45-2	45-2	45-2
6300			M8R2K	M8R2K	M8R2L	M8R2L	L6B2N	M6M2P	M6M2Q	M6M2Q	M6M2Q	M5F2R	M5F2R	M5F2R	M5B2T	N5M2W	N5M2W	N5M2W
			5,5-2	5,5-2	7,5-2	7,5-2	11-2	15-2	18,5-2	18,5-2	18,5-2	22-2	22-2	22-2	30-2	45-2	45-2	45-2
5600	K8B2F	K8B2H	K8B2H	K7B2J	K7B2K	L6F2N	L6F2N	M6R2P	M6R2P	M6R2P	M6R2Q	M6M2Q	L3F2R	M5M2R	M5B2T	M5B2T	M5B2T	N5M2W
	2,2-2	3-2	3-2	4-2	5,5-2	11-2	11-2	15-2	15-2	15-2	18,5-2	18,5-2	22-2	22-2	30-2	30-2	30-2	45-2
5000	K8F2F	K8F2F	K8F2H	K7F2J	K7F2K	K6B2L	K6B2L	L6M2N	M6R2P	M6R2P	M6R2Q	M6R2Q	M6R2Q	L3F2R	L3B2R	L3B2R	L3B2R	M5B2T
	2,2-2	2,2-2	3-2	4-2	5,5-2	7,5-2	7,5-2	11-2	15-2	15-2	18,5-2	18,5-2	18,5-2	22-2	22-2	22-2	22-2	30-2
4500	K8M2F	K8M2F	K7M2J	K6F2K	K6F2K	K6F2L	K6F2L	K6B2N	K3B2P	K3B2P	K3B2P	M6R2Q	M6R2Q	L3F2R	L3F2R	L3F2R	L3F2R	L3B2R
	2,2-2	2,2-2	4-2	5,5-2	5,5-2	7,5-2	7,5-2	11-2	15-2	15-2	15-2	18,5-2	18,5-2	22-2	22-2	22-2	22-2	22-2
4000	K8R2E	K8R2F	K8M2F	K7M2J	K7M2J	K6M2K	K5F2L	K5F2L	K5B2N	K5B2N	K5B2N	K3B2P	K3B2P	K3B2P	L3F2R	L3F2R	L3F2R	L3F2R
	1,5-2	2,2-2	2,2-2	4-2	4-2	5,5-2	7,5-2	7,5-2	11-2	11-2	11-2	15-2	15-2	15-2	22-2	22-2	22-2	22-2
3550	K8R2E	K8R2E	K8R2F	K8R2F	J6B2J	K6R2K	K5M2L	K5M2L	K5F2N	K5F2N	K5F2N	K5B2N	K3F2P	K3F2P	K3B2P	K1B2Q	L3F2R	L3F2R
	1,5-2	1,5-2	2,2-2	2,2-2	4-2	5,5-2	7,5-2	7,5-2	11-2	11-2	11-2	11-2	15-2	15-2	15-2	18,5-2	22-2	22-2
3150	H8B2D	H6B2F	H6B2F	K8R2F	J6F2J	J6F2J	K6R2K	K6R2L	K5M2L	K5M2L	K5F2N	K5F2N	K5B2N	K3F2P	K3F2P	K3B2P	K1B2Q	K1B2Q
	1,1-2	2,2-2	2,2-2	2,2-2	4-2	4-2	5,5-2	7,5-2	7,5-2	7,5-2	11-2	11-2	11-2	15-2	15-2	15-2	15-2	18,5-2
2800	H8F2D	H8F2D	H6F2F	H6B2F	H6B2H	J6F2J	K6R2K	K6R2K	K6M2L	K3R2N	K5M2L	K3M2N	K3M2N	K5B2N	K3F2P	K3F2P	K3F2P	P3B4R
	1,1-2	1,1-2	2,2-2	2,2-2	3-2	4-2	5,5-2	5,5-2	7,5-2	11-2	7,5-2	11-2	11-2	11-2	15-2	15-2	15-2	18,5-4
2500	H8M2C	H6M2E	H6F2F	H6F2F	H6F2F	H6B2H	H3B2J	H3B2J	K3W2L	K3W2L	K3R2N	K3R2N	K3R2N	K3M2N	K3M2N	P3F4Q	P3F4Q	P3F4Q
	0,75-2	1,5-2	2,2-2	2,2-2	2,2-2	3-2	4-2	4-2	7,5-2	7,5-2	11-2	11-2	11-2	11-2	11-2	15-4	15-4	15-4
2240	H8R2C	H6R2E	H6M2E	H6M2F	H6F2F	H6B2H	H3F2J	H3F2J	H3B2J	H1B2L	K3W2L	K3W2L	N3B4N	K3R2N	K3R2N	P3F4Q	P3F4Q	P3F4Q
	0,75-2	1,5-2	1,5-2	2,2-2	2,2-2	3-2	4-2	4-2	4-2	7,5-2	7,5-2	7,5-2	11-4	11-2	11-2	15-4	15-4	15-4
2000	H8R2C	H8R2C	H6R2E	H6R2F	H6M2F	H3M2H	H3F2J	H3F2J	H3F2J	H3B2J	H1B2L	H1B2L	K3W2L	N3B4N	N3B4N	N3B4N	P3F4Q	P3F4Q
	0,75-2	0,75-2	1,5-2	2,2-2	2,2-2	3-2	4-2	4-2	4-2	4-2	7,5-2	7,5-2	7,5-2	11-4	11-4	11-4	15-4	15-4
1800	F6B2C	F6B2C	H6R2E	H6R2F	H6R2F	H3R2H	H3M2H	M5B4J	H3F2J	H3F2J	H3B2J	H1B2L	H1B2L	N3F4N	N3F4N	K3M2N	N3B4N	N3B4N
	0,75-2	0,75-2	1,5-2	2,2-2	2,2-2	3-2	3-2	4-4	4-2	4-2	4-2	7,5-2	7,5-2	11-4	11-4	11-2	11-4	11-4
1600	F6F2C	F6F2C	F3B2E	F3B2E	H6R2F	H3R2H	H3R2H	H3M2H	M5B4J	M3B4K	M3B4K	H3B2J	M3B4K	H1B2L	N3F4N	N3F4N	N3F4N	N3F4N
	0,75-2	0,75-2	1,5-2	1,5-2	2,2-2	3-2	3-2	3-2	4-4	5,5-4	5,5-4	4-2	5,5-4	7,5-2	11-4	11-4	11-4	11-4
1400	F6M2C	F6M2C	F6B2D	F3F2D	F3B2E	F1B2F	H3W2F	H3R2H	H3M2H	M5B4J	M5B4J	M5B4J	M3F4K	M3B4K	M3B4K	N3M4M	M2B4M	M2B4M
	0,75-2	0,75-2	1,1-2	1,1-2	1,5-2	2,2-2	2,2-2	3-2	3-2	4-4	4-4	4-4	5,5-4	5,5-4	5,5-4	7,5-4	7,5-4	7,5-4
1250	F6R2B	F6R2B	F6F2D	F3F2D	F3F2D	F3B2E	F1B2F	H3W2F	H3R2H	H3M2H	M5B4J	M5B4J	M5B4J	M3F4K	H1B2L	M2B4M	M2B4M	M2B4M
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1120	F6W2B	F6R2B	F3M2D	F3M2D	F3F2D	F3F2D	F3B2E	H3W2F	H3W2F	H3R2H	M3M4J	M3M4J	L1B4J	M3B4K	M3B4K	M3B4K	N3M4M	N3M4M
	0,55-2	0,55-2	1,1-2	1,1-2	1,1-2	1,1-2	1,5-2	2,2-2	2,2-2	3-2	4-4	4-4	4-4	5,5-4	5,5-4	5,5-4	7,5-4	7,5-4
1000	D6B2A	F6W2B	F3R2C	F3R2C	F3M2D	F3F2D	K3B4F	F1B2F	H3W2F	H3W2F	M3M4J	M3M4J	M3M4J	L1B4J	L1B4J	M3F4K	M3B4K	M3B4K
	0,37-2	0,55-2	0,75-2	0,75-2	1,1-2	1,1-2	1,5-4	2,2-2	2,2-2	2,2-2	4-4	4-4	4-4	4-4	4-4	5,5-4	5,5-4	5,5-4
900	D6F2A	F3W2C	F3W2C	F3W2C	F3R2C	F3M2D	F3F2D	K3B4F	K1B4G	H3W2F	H3R2H	M3W4H	M3M4J	M3M4J	M3M4J	M3F4K	M3B4K	M3B4K
	0,37-2	0,75-2	0,75-2	0,75-2	0,75-2	1,1-2	1,1-2	1,5-4	2,2-4	2,2-2	3-2	3-4	4-4	4-4	4-4	5,5-4	5,5-4	5,5-4
800	D6M2A	D3B2A	F3W2C	F3W2C	F3W2C	F3R2C	F3F2D	K3F4F	K3B4F	K1B4G	K1B4G	M3W4H	M3W4H	L1B4J	L1B4J	L1B4J	M3F4K	M3F4K
	0,37-2	0,37-2	0,75-2	0,75-2	0,75-2	0,75-2	1,1-2	1,5-4	1,5-4	2,2-4	2,2-4	3-4	3-4	4-4	4-4	4-4	4-4	5,5-4
710	D6M2A	D3B2A	D3B2A	D1B2B	F3W2C	F3R2C	K3M4E	K3F4F	K3F4F	K3B4F	K1B4G	K1B4G	M3W4H	M3W4H	M3W4H	L1B4J	M3F4K	M3F4K
	0,37-2	0,37-2	0,37-2	0,55-2	0,75-2	0,75-2	1,1-4	1,5-4	1,5-4	1,5-4	2,2-4	2,2-4	3-4	3-4	3-4	4-4	4-4	5,5-4
600	H3B4C	H3B4C	H3B4C	H3B4C	D1B2B	F3W2C	F3M2D	K3M4E	J1B4F	K3F4F	K3B4F	K1B4G	K1B4G	M3W4H	M3W4H	M3M4J	L1B4J	L1B4J
	0,55-4	0,55-4	0,55-4	0,55-4	0,55-2	0,75-2	1,1-2	1,1-4	1,5-4	1,5-4	1,5-4	2,2-4	2,2-4	3-4	3-4	4-4	4-4	4-4
500	H3F4C	H3F4C	H3F4C	D3B2A	H3B4C	H3B4C	H1B4D	K3M4E	K3M4E	K3M4E	K3F4F	K3B4F	K1B4G	K1B4G	M3W4H	M3M4J	L1B4J	L1B4J
	0,55-4	0,55-4	0,55-4	0,55-4	0,55-2	0,55-4	0,55-4	1,1-4	1,1-4	1,1-4	1,5-4	1,5-4	2,2-4	2,2-4	3-4	4-4	4-4	4-4
400	H3M4B	H3M4B	H3M4B	H3M4B	H3B4C	H3B4C	H3B4C	H1B4D	K3M4E	K3M4E	K3M4E	K3B4F	K1B4G	K1B4G	K1B4G	M3W4H	L1B4J	L1B4J
	0,37-4	0,37-4	0,37-4	0,37-4	0,55-4	0,55-4	0,55-4	0,75-4	1,1-4	1,1-4	1,1-4	1,5-4	2,2-4	2,2-4	2,2-4	3-4	4-4	4-4
m³/h	400	800	1250	1600	2000	2500	3150	4000	5000	5600	6300	7100	8000	9000	10000	12500	14000	14000
m³/min	7	13	21	27	33	42	53	67	83	93	105	118	133	150	167	208	233	233
m³/s	0,11	0,2	0,35	0,45	0,56	0,7	0,9	1	1,4	1,6	1,75	2	2,25	2,5	2,8	3,5	4	4
Volume flow q _V																		

The specification is on page 4
See pages 8 and 9 for dimensions and accessories ...

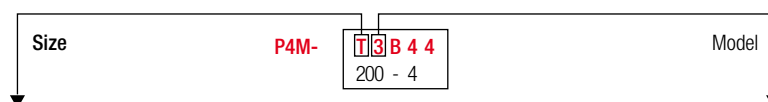
$\rho_1 = 1.20 \text{ kg/m}^3$																
= P4M/P4K How to quickly get the desired result. For example: ~90,000 m³/h and ~5,600 Pa. In the Pre-Selection you will find: T3B44 200 - 4 Motor power in kW Motor poles Type designation: P4M-T3B44 Dimensions see page 8																
N5F2X 55-2																11200
N5F2X 55-2	N5F2X 55-2							T3B44 200-4	T3B44 200-4							10000
N5F2X 55-2	N5F2X 55-2	N5F2X 55-2				T3F43 160-4	T3F43 160-4	T3F43 160-4	T3B44 200-4	T3B44 200-4						9000
N5M2W 45-2	N5F2X 55-2	N5F2X 55-2	N5F2X 55-2	S3B41 110-4	S3B41 110-4	T3M42 132-4	T3M42 132-4	T3F43 160-4	T3F43 160-4	T3B44 200-4						8000
N5M2W 45-2	N5M2W 45-2	N5F2X 55-2	N5F2X 55-2	S3F4Z 90-4	S3F4Z 90-4	S3B41 110-4	T3M42 132-4	T3M42 132-4	T3F43 160-4	T3F43 160-4						7100
M5B2T 30-2	R3B4X 55-4	R3B4X 55-4	R3B4X 55-4	S3F4Z 90-4	S3F4Z 90-4	S3F4Z 90-4	S3B41 110-4	T3M42 132-4	T3M42 132-4	T3F43 160-4	T3F43 160-4					6300
M5B2T 30-2	M5B2T 30-2	R3B4X 55-4	R3B4X 55-4	R3B4X 55-4	R1B4Y 75-4	S3F4Z 90-4	S3F4Z 90-4	S3B41 110-4	T3M42 132-4	T3M42 132-4	T3F43 160-4	T3F43 160-4				5600
Q3B4T 30-4	Q3B4T 30-4	Q3B4T 30-4	R3M4W 45-4	R3B4X 55-4	R3B4X 55-4	R1B4Y 75-4	S3F4Z 90-4	S3F4Z 90-4	T3M42 132-4	T3M42 132-4	T3F43 160-4	T3F43 160-4				5000
L3F2R 22-1	M5B2T 30-2	Q3B4T 30-4	R3M4W 45-4	R3B4X 55-4	R3B4X 55-4	R3B4X 55-4	R1B4Y 75-4	S3F4Z 90-4	S3B41 110-4	U3B62 90-6	T3M42 132-4	T3F43 160-4				4500
L3F2R 22-2	M5B2T 30-2	Q3B4T 30-4	Q3B4T 30-4	R3M4W 45-4	R3B4X 55-4	R3B4X 55-4	R1B4Y 75-4	R1B4Y 75-4	U3B62 90-6	U3B62 90-6	T3M42 132-4	U1B64 132-6	U1B64 132-6			4000
K1B2Q 18,5-2	M5B2T 30-2	Q3B4T 30-4	Q3B4T 30-4	Q1B4W 45-4	R3M4W 45-4	R3B4X 55-4	T3B6Z 55-6	R1B4Y 75-4	S3F4Z 90-4	U3B62 90-6	U3B62 90-6	T3M42 132-4	U1B64 132-6			3550
P3B4R 18,5-4	P3B4R 18,5-4	P1B4T 30-4	S3B6W 30-6	Q1B4W 45-4	Q1B4W 45-4	Q1B4W 45-4	R3B4X 55-4	R1B4Y 75-4	R1B4Y 75-4	U3B62 90-6	U3B62 90-6	T3M42 132-4	U1B64 132-6	U1B64 132-6		3150
P3F4Q 15-4	K1B2Q 18,5-2	P1B4T 30-4	P1B4T 30-4	Q3B4T 30-4	S1B6X 37-6	R3M4W 45-4	R3B4X 55-4	T3B6Z 55-6	R1B4Y 75-4	T1B61 75-6	U3B62 90-6	U3B62 90-6	U1B64 132-6	U1B64 132-6		2800
N1B4Q 15-4	K1B2Q 18,5-2	P3B4R 18,5-4	P1B4T 30-4	Q3B4T 30-4	S3B6W 30-6	S1B6X 37-6	Q1B4W 45-4	U1B81 55-8	R1B4Y 75-4	R1B4Y 75-4	T1B61 75-6	U3B62 90-6	U1B64 132-6	U1B64 132-6	U1B64 132-6	2500
N2B4Q 15-4	N1B4Q 15-4	P3F4Q 15-4	R1B6U 22-6	Q3B4T 30-4	S3B6W 30-6	S3B6W 30-6	Q1B4W 45-4	T3B6Z 55-6	R1B4Y 75-4	R1B4Y 75-4	T1B61 75-6	T1B61 75-6	U3B62 90-6	U1B64 132-6	U1B64 132-6	2240
N3B4N 11-4	N2B4Q 15-4	P3F4Q 15-4	R3B6T 18,5-6	R1B6U 22-6	Q3B4T 30-4	Q1B4W 45-4	Q1B4W 45-4	S1B6X 37-6	T3B6Z 55-6	R1B4Y 75-4	T1B61 75-6	T1B61 75-6	U3B62 90-6	U3B62 90-6	U1B64 132-6	2000
N3F4N 11-4	N3B4N 11-4	N1B4Q 15-4	P1B4T 30-4	P1B4T 30-4	Q3B4T 30-4	Q1B4W 45-4	Q1B4W 45-4	S1B6X 37-6	R1B4Y 75-4	R1B4Y 75-4	R1B4Y 75-4	U1B81 55-8	T1B61 75-6	U3B62 90-6	U1B64 132-6	1800
N3F4N 11-4	N3B4N 11-4	N2B4Q 15-4	R1B6U 22-6	R1B6U 22-6	R1B6U 22-6	Q3B4T 30-4	Q1B4W 45-4	Q1B4W 45-4	S1B6X 37-6	R1B4Y 75-4	R1B4Y 75-4	R1B4Y 75-4	T1B61 75-6	U3B62 90-6	U1B64 132-6	1600
N3F4N 11-4	N3F4N 11-4	N2B4Q 15-4	Q1B6S 15-6	R1B6U 22-6	R1B6U 22-6	R1B6U 22-6	Q1B4W 45-4	Q1B4W 45-4	S1B6X 37-6	R1B4Y 75-4	R1B4Y 75-4	R1B4Y 75-4	T1B61 75-6	T1B61 75-6		1400
M2B4M 7,5-4	N3F4N 11-4	P3R4N 11-4	Q1B6S 15-6	R3B6T 18,5-6	R1B6U 22-6	R1B6U 22-6	Q1B4W 45-4	Q1B4W 45-4	S1B6X 37-6	S1B6X 37-6	R1B4Y 75-4	R1B4Y 75-4	U1B81 55-8	U1B81 55-8		1250
N3M4M 7,5-4	P1B6N 7,5-6	P3R4N 11-4	Q1B6S 15-6	Q1B6S 15-6	P1B4T 30-4	R1B6U 22-6	R1B6U 22-6	Q1B4W 45-4	S1B6X 37-6	S1B6X 37-6	U1B81 55-8	U1B81 55-8	U1B81 55-8	U1B81 55-8		1120
N3R4K 5,5-4	P1B6N 7,5-6	P3R4N 11-4	Q1B6S 15-6	Q1B6S 15-6	Q1B6S 15-6	R1B6U 22-6	R1B6U 22-6	Q1B4W 45-4	S1B6X 37-6	S1B6X 37-6	U1B81 55-8	U1B81 55-8	U1B81 55-8	U1B81 55-8		1000
N3R4K 5,5-4	P1B6N 7,5-6	P1B6N 7,5-6	Q1B6S 15-6	Q1B6S 15-6	Q1B6S 15-6	R1B6U 22-6	R1B6U 22-6	R1B6U 22-6	S1B6X 37-6	S1B6X 37-6	U1B81 55-8	U1B81 55-8	U1B81 55-8	U1B81 55-8		900
N3R4K 5,5-4	P1B6N 7,5-6	P1B6N 7,5-6	Q1B6S 15-6	Q1B6S 15-6	Q1B6S 15-6	R1B6U 22-6	R1B6U 22-6	R1B6U 22-6	S1B6X 37-6	S1B6X 37-6	U1B81 55-8	U1B81 55-8	U1B81 55-8	U1B81 55-8		800
N1B6L 4-6	P1B6N 7,5-6	P1B6N 7,5-6	Q1B6S 15-6	Q1B6S 15-6	Q1B6S 15-6	R1B6U 22-6	R1B6U 22-6	R1B6U 22-6	S1B6X 37-6	S1B6X 37-6	U1B81 55-8	U1B81 55-8	U1B81 55-8	U1B81 55-8		710
18000	20000	25000	31500	40000	45000	50000	60000	71000	80000	90000	100000	112000	125000	140000	160000	180000
300	333	417	525	667	750	833	1000	1183	1333	1500	1667	1867	2083	2333	2667	3000
5	5,5	7	8,75	11	12,5	14	17	20	22	25	28	30	35	39	45	50

P2M / P4M / P4K

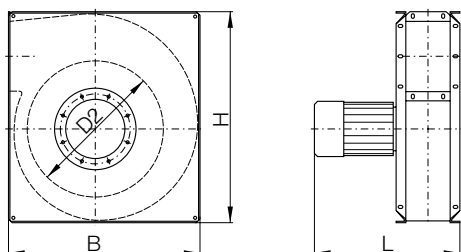
Industrial Process Fans
with housing and direct drive

Main Dimensions in mm, subject to change.

The dimensions can be determined from the Pre-Selection, as follows:

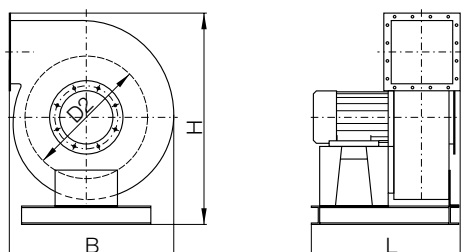


P2M



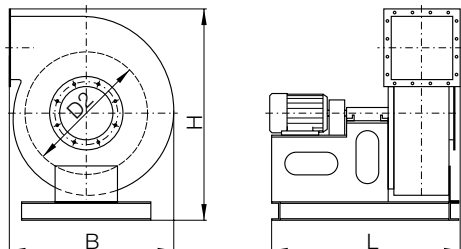
Size	Impeller Ø D2	B	H	L _{max} for model	1	2	3	5	6	7	8
P2M-											
D	282	412	446	630	—	590	—	500	—	—	—
F	355	511	557	790	—	730	—	620	—	—	—
H	447	634	697	960	—	890	—	750	—	680	—
J	501	710	777	1010	—	930	—	770	—	—	—
K	562	790	871	1240	—	1150	1020	970	930	880	—
L	631	884	973	1290	1240	1190	—	990	—	—	—
M	708	986	1092	1360	1290	1240	1070	1010	970	900	—
N	794	1115	1221	1440	1370	1310	—	—	—	920	—
P	891	1245	1360	1510	—	1370	—	—	—	—	—

P4M



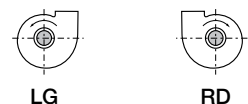
Size	Impeller Ø D2	B	H	L _{max} for model	1	3
P4M-						
Q	1000	1490	1940	1610	—	1450
R	1122	1670	2150	1720	—	1540
S	1258	1860	2410	2020	—	1820
T	1413	2080	2680	2140	—	1920
U	1585	2340	3000	2290	—	2020

P4K



Size	Impeller Ø D2	B	H	L _{max} for model	1	3
P4K-						
R	1122	1670	2150	2650	—	2470
S	1258	1860	2410	2910	—	2700
T	1413	2080	2680	3030	—	2800
U	1585	2340	3000	3180	—	2910

Housing Position and Rotation



Direction of rotation

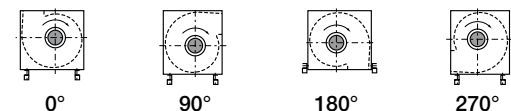
The direction of rotation is determined with viewing direction toward the drive side (motor):

LG = counterclockwise.

RD = clockwise.

LG and RD are available.

P2M

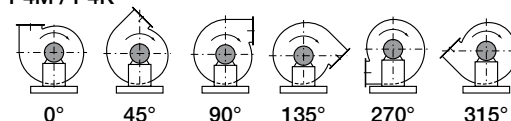


Housing positions

The housing positions of the P2M are possible in 90° increments for the following positions:

0°, 90°, 180° and 270° (see Fig.)

P4M / P4K



The housing positions of the P4M and P4K are possible in 45° increments for the following positions:

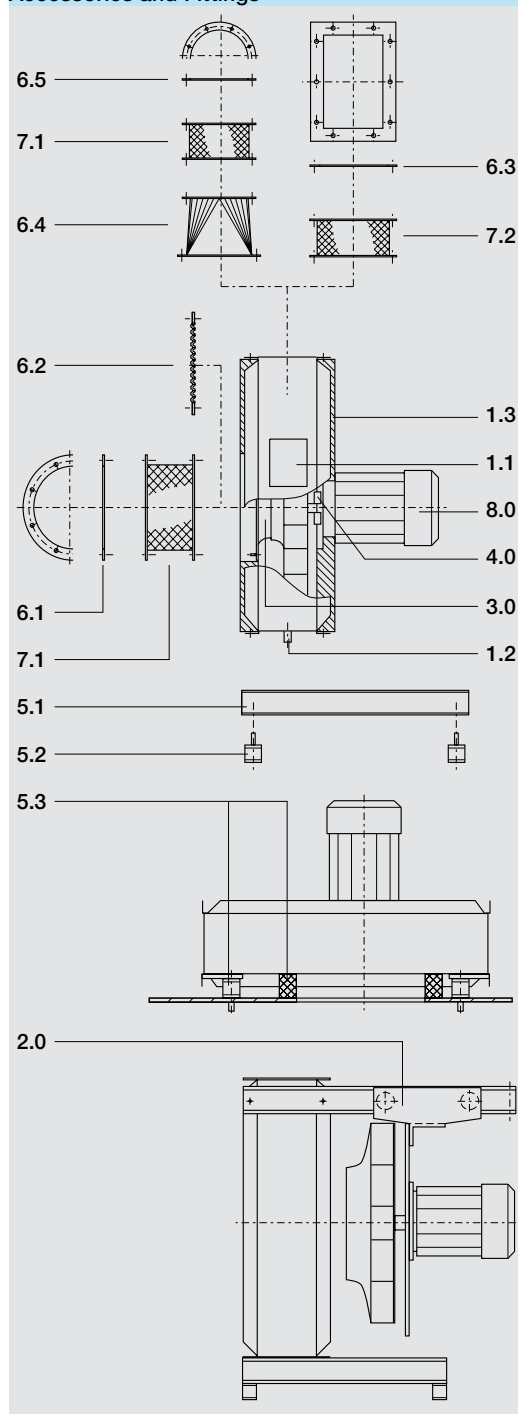
0°, 45°, 90°, 135°, 270° and 315° (see Fig.)

Housing positions 180° and 225° on request.

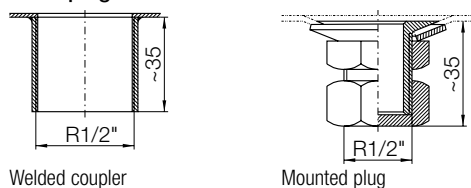
P2M / P4M / P4K

Industrial Process Fans
with housing and direct drive

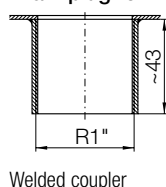
Accessories and Fittings



Drain plug for P2M



Drain plug for P4M/P4K



1.0 Housing fittings

1.1 Inspection opening

also available as a sealed opening.

1.2 Drain plug

P2M: Steel intake duct, R 1/2" external thread, seal plug.

P2M: Welded stainless steel coupler 1.4307, R 1/2" internal thread.

P4M/P4K: Welded coupler in steel or stainless steel 1.4307, R 1" internal thread.

1.3 Acoustic insulation, thermal insulation

2.0 Maintenance aid (only P2M)

Motor impeller unit can be pulled out on the motor side if there is a horizontal axis. For set-up with vibration dampers, mounting rails are required (see 5. Set-up systems).

3.0 Explosion protection

as specified in ATEX Category 2 or 3; gas or dust.

4.0 Sealing systems

Housing

- Housing welded watertight and sealed (standard for stainless steel material).
An absolute seal cannot be achieved.

Shaft

- Stainless steel shaft seal to 300°C (standard for stainless steel housing and fans for medium temperatures >100°C).
- Shaft seal and aerodynamic seal (impeller back side blades).
- Shaft seal and V-ring seal, to 200°C.
- Shaft seal and V-ring seal and water deflector, to +200°C.

5.0 Set-up systems

5.1 Mounting rails Steel-coated, mounted, available for P2M.

Base frame is included in the standard scope of supply for P4M and P4K.

5.2 Vibration dampers

P2M: One set of rubber vibration dampers with two mounting rails (5.1).

P4M/P4K: One set rubber vibration dampers.

Spring vibration dampers available on request.

5.3 Mounting set for horizontal installation (only P2M)

For insulation of structure-borne noise, connection of fan intake and plant for minimum height and minimum costs. Suitable to +80°C.

Includes: - 1 pc. vibration seal
- 4 pc. rubber vibration dampers with foot plates

6.0 Connection element, rigid

6.1 Mating flange suction-side in accordance with DIN 24154-R4.

6.2 Protective intake grille chrome-plated.

6.3 Mating frame pressure-side in accordance with DIN 24158-R4.

6.4 Transition piece rectangular to round DIN 24154, R4 welded-on.

6.5 Mating flange for transition piece in accordance with DIN 24154-R4.

6.6 Screws / seals

1 set for connection of a connecting element / compensator.

7.0 Connecting element, flexible

7.1 Compensators round, suction-side or for the pressure-side transition piece.

7.2 Compensators rectangular, pressure side, also watertight.

7.3 Baffle round and rectangular, internal

Protects sleeve if there is negative pressure and protects against particles

8.0 Drives

Motor

PTC thermistor temperature sensor, other numbers of contacts, protection classes, heat classes, voltages, frequencies, EEx e.

Thermal barrier

on the shaft passage, at displacement medium temperatures in excess of +100°C

We would be pleased to advise you: Phone +49 7942/101224

P4R

Industrial Process Fans
with housing and belt drive

		Pre-Selection																
		H3B-315	H3B-315	H3B-315	H3B-315	H3B-315	H3B-315	H3B-315	H3B-315	H3B-315	J3B-355	J3B-355	K3B-400	K3B-400	L3B-450	L3B-450	M3B-500	M3B-500
Pa	8000	20	21	22	22	23	24	25	27	31	34	39	42	49	53	61	66	77
	7100	17	18	18	19	20	21	22	24	27	30	33	36	43	46	53	57	66
	6300	14	15	16	16	17	18	19	21	24	26	29	32	37	41	46	51	58
	5600	12	13	13	14	14	15	17	19	21	23	25	28	33	36	40	45	51
	5000	10	11	11	12	12	13	15	17	18	21	23	26	29	33	36	37	45
	4500	9	9	10	10	11	12	13	15	17	18	20	23	26	29	32	36	40
	4000	8	8	9	9	10	11	12	13	15	16	19	20	23	26	29	32	36
	3550	7	7	7	8	8		11	12	13	15	16	18	21	24	26	30	32
	3150	6	6	6	7	8	8	10	10	12	13	15	16	19	21	24	26	30
	2800	5	5	5	6	7	7	8	9	11	12	13	14	17	18	21	23	26
	2500	6	6	6	6,5	7	7,5	8	9	10	11	12	14	16	18	20	22	25
	2240	5	5	5,5	6	6	6,5	7	8	9	10	11	12	14	16	18	20	22
	2000	4,5	4,5	5	5	5,5	6	6,5	7	8	9	10	11	13	14	16	18	20
	1800	4	4	4	4,5	5	5	5,5	6	7	8	9	10	11	13	14	16	18
	1600	3	3	3,5	4	4	4,5	5	6	6,5	7	8	9	10	11	13	14	16
	1400	3	3	3	3,5	4	4	4,5	5	5,5	6,5	7	8	9	10	11	12	14
	1250	2	2,5	3	3	3,5	3,5	4	4,5	5	6	6	7	8	9	10	11	12
	1120	2	2	2,5	2,5	3	3	3,5	4	4,5	5	5,5	6	7	8	9	10	11
	1000	2	2	2	2,5	2,5	3	3,5	3,5	4	4,5	5	5,5	6,5	7	8	9	10
	900	1,5	2	2	2	2,5	2,5	3	3	3,5	4	4,5	5	6	6,5	7	8	9
	800	1,5	1,5	2	2	2	2,5	2,5	3	3	3,5	4	4,5	5	6	6,5	7	8
	710	1	1,5	1,5	2	2	2	2,5	2,5	3	3	3,5	4	4,5	5	5,5	6	7
	600	1	1	1,5	1,5	1,5	2	2	2	2,5	2,5	3	3,5	4	4	4,5	5	6
	500	1	1	1	1,5	1,5	1,5	2	2	2	2,5	2,5	3	3	4	4	4,5	5
	400	0,5	1	1	1	1	1,5	1,5	1,5	2	2	2	2,5	3	3	3	3,5	4
	m³/h	4000	4500	5000	5600	6300	7100	8000	9000	10000	11200	12500	14000	16000	18000	20000	22400	25000
m³/min	67	75	83	93	105	118	133	150	167	187	208	233	267	300	333	373	417	
m³/s	1,11	1,25	1,40	1,56	1,75	2	2,22	2,5	2,8	3,11	3,5	3,9	4,44	5	5,56	6,22	7	
		Volume flow q _V																

The specification is on page 4
See pages 12 and 13 for dimensions and accessories ...

$\rho_1 = 1.20 \text{ kg/m}^3$

N3B-560	P3B-630	P3B-630	Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120					
82	97	104	121	130	152	163	191	206	242	261	284	315					8000
N3B-560	P3B-630	P3B-630	Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120					7100
72	84	91	105	114	131	143	166	181	210	228	259	282					
N3B-560	P3B-630	P3B-630	Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120					6300
63	73	80	91	100	114	125	144	159	182	200	226	248					
N3B-560	P3B-630	P3B-630	Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120					5600
56	64	71	80	89	100	111	127	140	160	178	199	219					
P3B-630	P3B-630	Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120						5000
50	56	63	71	81	89	102	112	129	142	162	176						
P3B-630	P3B-630	Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120						4500
46	51	57	64	72	80	90	100	114	127	144	157						
P3B-630	Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120							4000
40	46	50	58	64	72	80	92	101	115	127							
Q3B-710	Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120								3550
37	40	47	51	59	64	74	80	92	100								
Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120									3150
32	38	40	47	52	60	64	74	80									
Q3B-710	R3B-800	R3B-800	S3B-900	S3B-900	T3B-1000	T3B-1000	U3B-1120	U3B-1120									2800
28	33	36	42	45	52	56	65	70									
M1B-630	M1B-630	N1B-710	N1B-710	P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400		2500
27	32	34	40	44	50	55	62	69	80	87	99	108	123	136	159		
M1B-630	N1B-710	N1B-710	P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400			2240
25	27	31	35	40	45	49	55	62	69	79	86	97	108	122			
M1B-630	N1B-710	N1B-710	P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400			2000
22	24	28	31	36	39	44	49	56	62	72	77	88	96	111			
N1B-710	N1B-710	P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400				1800
20	22	25	28	32	35	39	45	50	56	62	70	78	87				
N1B-710	N1B-710	P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400				1600
17	20	22	25	28	32	35	40	44	51	56	63	69	78				
N1B-710	P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400					1400
15	17	19	22	25	27	31	34	39	43	50	53	61					
N1B-710	P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400					1250
14	15	18	20	23	24	28	30	35	39	44	48	54					
P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400						1120
12	14	15	17	20	22	25	27	31	35	39	43						
P1B-800	P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400						1000
11	12	14	16	18	20	22	25	28	32	35	40						
P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400							900
10	11	12	14	16	18	20	22	25	28	31							
P1B-800	Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400							800
9	10	11	12	14	16	18	19	22	24	28							
Q1B-900	Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400								710
8	9	10	11	13	14	15	17	19	22								
Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400	U1B-1400								600
6,5	7	8	9	10	11	13	15	16	19								
Q1B-900	R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400									500
6	6	7	8	9	10	11	12	15									
R1B-1000	R1B-1000	S1B-1120	S1B-1120	T1B-1250	T1B-1250	U1B-1400	U1B-1400										400
4	5	5,5	6	7	8	9	10										
28000	31500	35500	40000	45000	50000	56000	63000	71000	80000	90000	100000	112000	125000	140000	160000	180000	
467	525	592	667	750	833	933	1050	1183	1333	1500	1667	1867	2083	2333	2667	3000	
7,8	8,75	10	11,2	12,5	14	15,5	17,5	20	22	25	28	31	35	39	45	50	

Einfach und exakt auslegen mit *proSELECTA II*

How to quickly get the desired result.

For example:

~90.000 m³/h and ~1.000 Pa.
In the Pre-Selection you will find:U1B 1400
40app. shaft power
in kWNominal size
IntakeType designation: **P4R-U1B-1400**

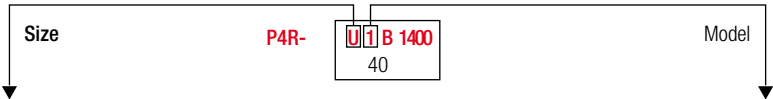
Dimensions see page 12

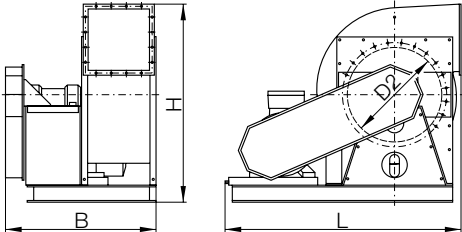
P4R

Industrial Process Fans
with housing and belt drive

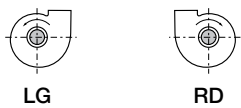
Main Dimensions in mm, subject to change.

The dimensions can be determined from the Pre-Selection, as follows:



P4R					
		Size	Impeller	B _{max} for model	
		P4R-	Ø D2	1	3
H	447	1200	880	980	900
J	501	1270	950	1030	960
K	562	1460	1100	1090	1000
L	631	1560	1220	1200	1100
M	708	1650	1350	1290	1170
N	794	1780	1500	1400	1270
P	891	2050	1700	1520	1370
Q	1000	2150	1900	1620	1450
R	1122	2670	2150	1650	1430
S	1258	2800	2410	1820	1560
T	1413	2950	2680	1940	1700
U	1585	3060	3000	2190	1920

Housing Position and Rotation



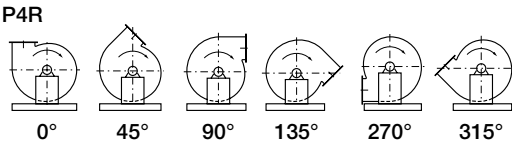
Direction of rotation

The direction of rotation is determined with viewing direction toward the drive side (motor):

LG = counterclockwise.

RD = clockwise.

LG and RD are available.



Housing positions

The housing positions of the P4R are possible in 45° for the following positions:

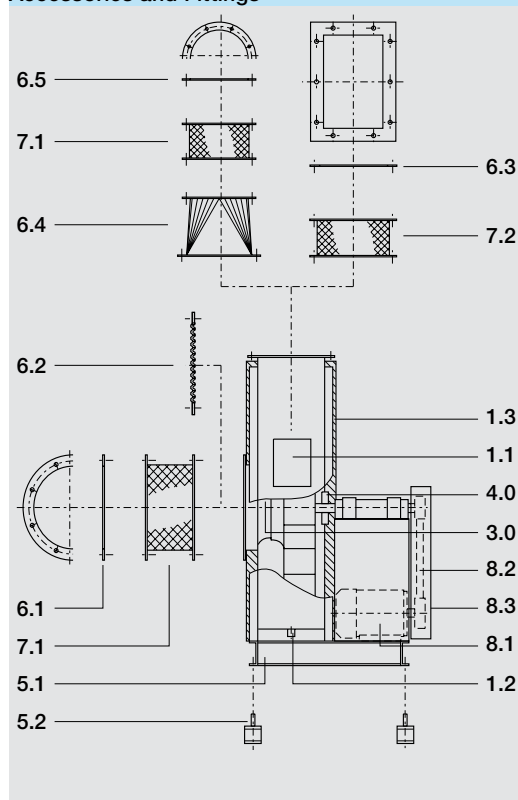
0°, 45°, 90°, 135°, 270° and 315° (see Fig.)

Housing settings 180° and 225° on request.

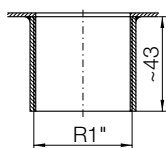
P4R

Industrial Process Fans
with housing and belt drive

Accessories and Fittings



Drain plug for P4R



Welded coupler

1.0 Housing fittings**1.1 Inspection opening**

also available as a sealed opening.

1.2 Drain plug

Welded coupler of steel or stainless steel 1.4307, R 1" internal thread.

1.3 Acoustic insulation, thermal insulation**3.0 Explosion protection**

In accordance with ATEX Category 2 or 3; gas or dust.

4.0 Sealing systems**Housing**

- Housing welded watertight and sealed (standard for stainless steel material).
An absolute seal cannot be achieved.

Shaft

- Stainless steel shaft seal to 300°C (standard for stainless steel housing and fans for medium temperatures >100°C).
- Shaft seal and aerodynamic seal (impeller back side blades).
- Shaft seal and V-ring seal, to 200°C.
- Shaft seal and V-ring seal and water deflector, to +200°C.

5.0 Set-up systems**5.1 Base frame**

Included in the standard scope of delivery.

5.2 Vibration dampers

One set of vibration dampers. Spring vibration dampers available on request.

6.0 Connection element, rigid

6.1 Mating flange suction-side in accordance with DIN 24154-R4.

6.2 Protective intake grille chrome-plated.

6.3 Mating frame pressure-side in accordance with DIN 24158-R4.

6.4 Transition piece rectangular to round DIN 24154, R4 welded-on.

6.5 Mating flange for transition piece in accordance with DIN 24154-R4.

6.6 Screws / seals

1 set for connection of a connecting element / compensator.

7.0 Connecting element, flexible

7.1 Compensators round, suction-side or for the pressure-side transition piece.

7.2 Compensators rectangular, pressure side, also watertight.

7.3 Baffle round and rectangular, internal

Protects sleeve if there is negative pressure and protects against particles

8.0 Drives**8.1 Motor**

PTC thermistor temperature sensor, other numbers of contacts, protection classes, thermal classes, voltages, frequencies, EEx e.

8.2 Belt drive**8.3 Belt guard****8.4 Thermal barrier**

On the shaft passage for displacement medium temperatures over +100°C

Q2M

Industrial Process Fans

without housing, with direct drive

Pre-Selection																			
Pa	Einfach und exakt auslegen mit proSELECTA II 																		
5600																M5F2T	M5F2T	M5F2T	M5F2T
5000																30-2	30-2	30-2	30-2
4500																M5F2T	M5F2T	M5F2T	M5F2T
4000																30-2	30-2	30-2	30-2
3550																M5F2T	M5F2T	M5F2T	M5F2T
3150																30-2	30-2	30-2	30-2
2800																M5F2T	M5F2T	M5F2T	M5F2T
2500																30-2	30-2	30-2	30-2
2240																M5F2T	M5F2T	M5F2T	M5F2T
2000																30-2	30-2	30-2	30-2
1800																M5F2T	M5F2T	M5F2T	M5F2T
1600																30-2	30-2	30-2	30-2
1400																M5F2T	M5F2T	M5F2T	M5F2T
1250																30-2	30-2	30-2	30-2
1120																M5F2T	M5F2T	M5F2T	M5F2T
1000																30-2	30-2	30-2	30-2
900																M5F2T	M5F2T	M5F2T	M5F2T
800																30-2	30-2	30-2	30-2
710																M5F2T	M5F2T	M5F2T	M5F2T
630																30-2	30-2	30-2	30-2
500																M5F2T	M5F2T	M5F2T	M5F2T
400																30-2	30-2	30-2	30-2
320																M5F2T	M5F2T	M5F2T	M5F2T
250																30-2	30-2	30-2	30-2
200																M5F2T	M5F2T	M5F2T	M5F2T
m³/h	500	630	800	1000	1250	1600	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000
m³/min	8	11	13	17	21	27	33	37	42	47	53	59	67	75	83	93	105	118	133
m³/s	0,14	0,18	0,22	0,28	0,36	0,45	0,56	0,63	0,71	0,8	0,9	1	1,12	1,25	1,4	1,6	1,8	2	2,24
Volume flow q _v																			

The specification is on page 5

See pages 16 and 17 for dimensions and accessories ...

How to quickly get the desired result.

For example:
~**50.000** m³/h and ~**2.800** Pa.
In the Pre-Selection you will find:

R

2

B

4

Y

75

-

4

Motor power
in kW

Motor
poles

Type designation: **Q2M-R2B4Y**

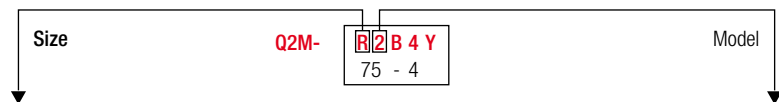
Dimensions see page 16

Q2M

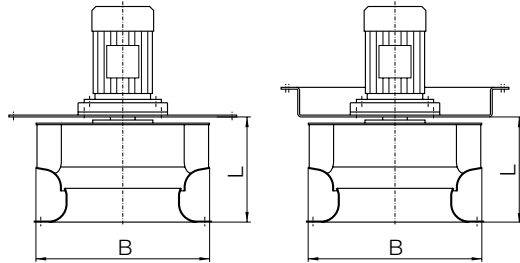
Industrial Process Fans
without housing, with direct drive

Main Dimensions in mm, subject to change.

The dimensions can be determined from the Pre-Selection, as follows:

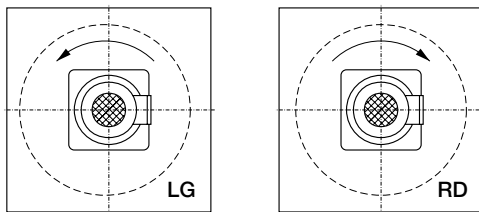


Q2M



Size: Q2M-	Impeller Ø B	L _{max} 1	for model 2	3	5
D	282	180	—	140	—
E	316	—	180	—	—
F	355	210	200	180	130
G	398	250	210	200	150
H	447	270	250	210	160
J	501	290	270	250	180
K	562	310	290	270	190
L	631	390	310	290	230
M	708	430	390	310	240
N	794	480	430	380	—
P	891	540	480	430	—
Q	1000	600	540	480	—
R	1122	670	600	540	—
S	1258	750	670	600	—
T	1413	—	—	670	—

Rotation

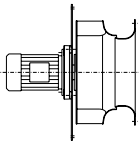
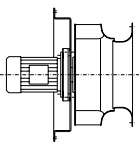
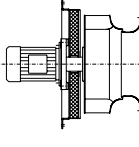


The direction of rotation is determined with viewing direction toward the drive side (motor):

LG = counterclockwise.**RD** = clockwise.

LG and RD are available.

Kit System

	Mounting plate Mounting frame	Possible Versions for from -20°C to t _{max}	heat loss over the mounting plate app. (uninsulated ± 100%)
	Mounting plate level/round level/square Motor, B5 mounting (to motor size 180)	+300°C	100 %
	Mounting frame Series 100 mm install depth ① Motor mounting B5 (to motor size 180) Motor mounting B3 (from motor size 200)	+300°C	100 %
	Mounting frame Series 100 mm install depth ① thermlock50 insulation, Motor mounting B5 (to motor size 180) Motor mounting B3 (from motor size 200)	+500°C ②	30 % through thermlock50

Thermal barrier for all versions for continuous temperatures over +100°C series

① „Custom install depth“ possible

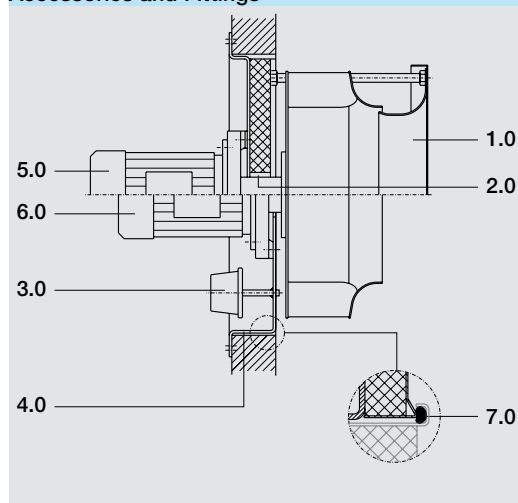
② From +400°C impeller is always stainless steel 1.4307

Q2M

Industrial Process Fans

without housing, with direct drive

Accessories and Fittings



1.0 Suction duct nozzle

Standard, loose

Attached suction duct nozzle

For easy installation and optimal functional safety.
Not available for round, level mounting plate.

2.0 Shaft seal

- Stainless steel shaft seal to +500°C
(Standard if parts that contact the medium are stainless steel,
For medium temperatures greater than +100°C and for *thermolock50*).
- Shaft seal and aerodynamic seal (impeller back side blades).
- Shaft seal and V-ring seal, to 200°C.
- Shaft seal and V-ring seal and water deflector, to +200°C.

3.0 Function monitoring

Through attached pressure cell with change-over contact.
Not available for round, level mounting plate.

4.0 Custom mounting frame depth

The standard install depth with mounting frame is 100 mm.

5.0 Explosion protection

Prepared for ATEX Category 3; gas or dust.

6.0 Drives

Motor

PTC thermistor temperature sensor, other numbers of contacts, protection classes, heat classes, voltages, frequencies, EEx e.

Thermal barrier

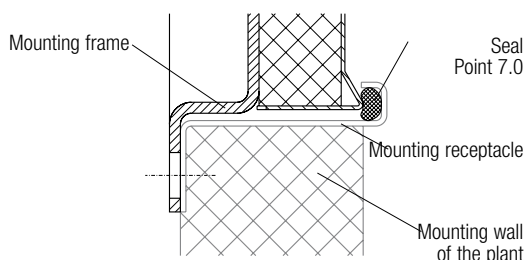
on the shaft passage, at displacement medium temperatures in excess of +100°C

7.0 Ceramic fibre seal

For interior seal *thermolock50* strictly required.

thermolock50

thermolock50



The highly efficient thermal insulation from Nicotra Gebhardt: *thermolock50*

Up to this point the usual solution consists of a thick insulation, most frequently with rock wool. However fans insulated in this manner are complex in design, and thus expensive. Now we know that they also frequently retain a lot less heat than was formerly assumed.

Through an extensive series of tests we have learned the following: It is not thickness of the insulation material alone that determines how good the thermal insulation of a fan is, the number and type of thermal bridges is also an important factor.

With *thermolock50* we have systematically minimised the thermal bridges on the basis of this knowledge.

The result

Example: Fan frame size K, +300°C continuous temperature of the displacement medium, +20°C ambient temperature; thermal losses only 1 kW/h, measured and confirmed.

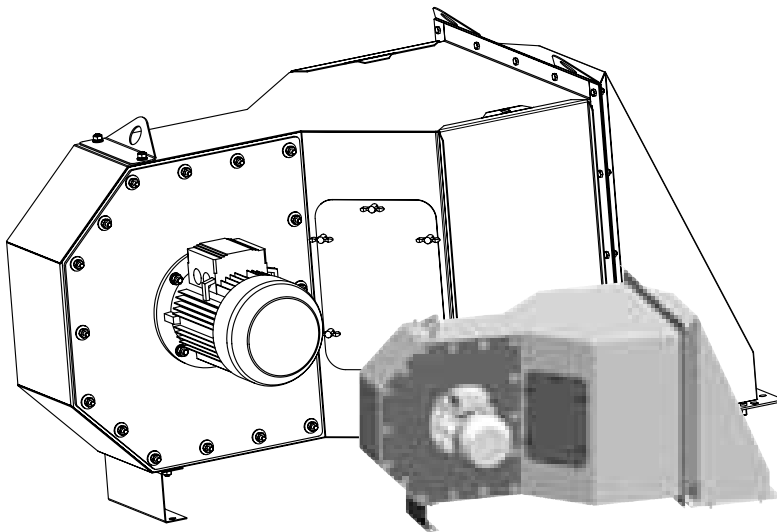
Thus this insulation is better than conventional insulation of 100 mm and more rock wool.

Additional advantages:

- Fewer thermal bridges due to ceramic fibre-seal (always use!).
- Hot gases do not migrate into the area between the mounting receptacle and the mounting frame. Consequence: Even less energy loss, even better contact protection.
- If the dew point is underranged sooting of the insulation material cannot occur, the insulating effect remains permanently intact.
- Particles of insulating material do not get into the displacement medium.

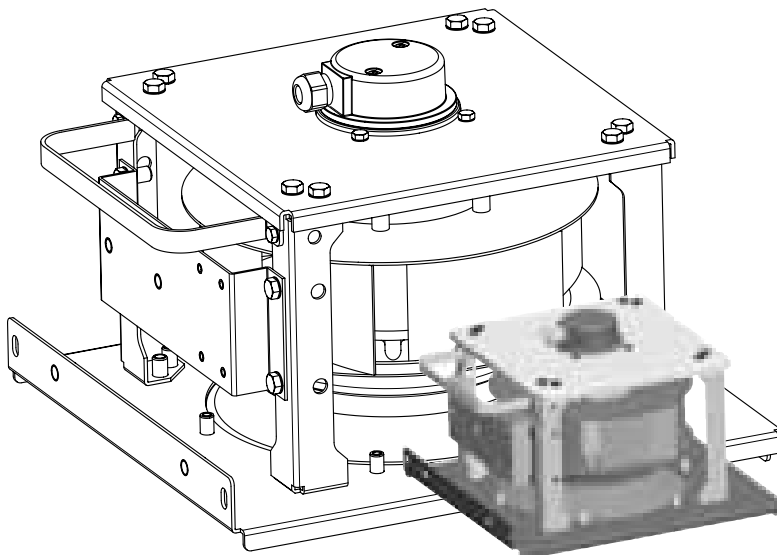
Customer-specific process air fans

In addition to the broad line of standardised centrifugal fans for ventilation and air-conditioning technology and process air technology, and the many variants that can be generated with the product line, Nicotra Gebhardt also has years of experience in the area of customer-specific fan solutions. If the requirement is appropriate even totally new developments are possible.



Optimal function, best price

- Do you want to standardise the ventilation and air technology in your machine or plant?
- Do you have a project for which you require higher quantities of a fan that optimally ensures that your goals relative to function and price are achieved?
- Are you looking for an experienced partner that will develop and supply this fan solution in close collaboration with you?



Customer-specific process air fans

What we offer you

Our specialists for customer-specific process air fans support your project: Competently, and they are fast and flexible.

Scope of service:

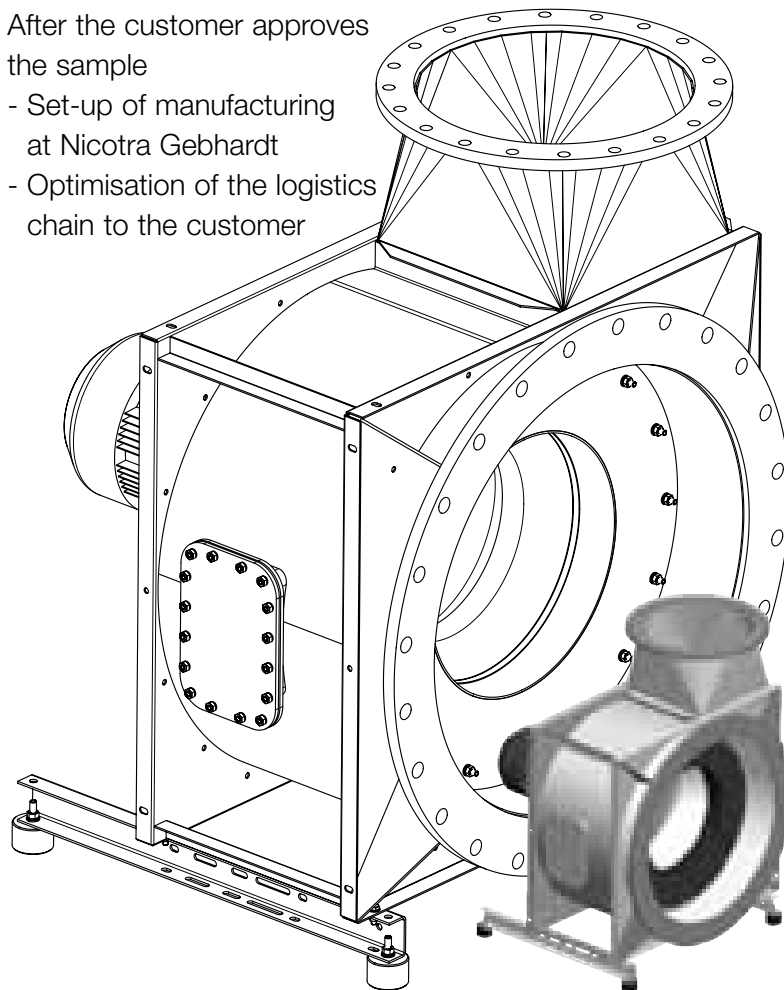
- Competent consulting
- Reviewing the specification for your fan:
 - Is the target price feasible?
 - Is the desired delivery date feasible?
 - Can the technical requirements be implemented?
 - Is a customer-specific solution economically practical?

After the customer approves the project

- Complete development of the fan
- Building the sample and measuring it on standard test stands
- Supporting the customer with the practical test in the plant
- Optimisation of the fan based on the results of the practical test

After the customer approves the sample

- Set-up of manufacturing at Nicotra Gebhardt
- Optimisation of the logistics chain to the customer



Many successful projects for our customers in different industries speak for themselves.

We would be pleased to advise you: Phone +49 7942/101224

Our industrial competence

Each industry imposes its own requirements on ventilation and air-conditioning technology. We have employees who are specialised in specific industries. For example ...



- Wind turbines
- Systems for environmental engineering
- Machines for the food products industry
- Rail vehicles
- Plastic machines



We would be pleased to advise you: Phone +49 7942/101224

Our industrial competence



Our specialists support you in selecting the suitable fan and with the engineering for its proper technical flow integration in your system.

Together with you they will work out the optimal fan solution, quiet and powerful, for example

- for installation where space is at a premium
- for minimum weight
- for minimum maintenance requirements
- for maximum service life
- for minimum energy consumption
- for different supply systems
- for variable speed drives
- with appropriate corrosion protection
- for operation with vibration from outside



Fans for comfort applications, also for process airtechnology

The extensive Nicotra-Gebhardt product line

Also in the field of process air technology there are applications for which our ventilation and air-conditioning technology fans are ideally suitable.

Choose the fan that is right for your application from a large standardised product line - with the aid of our electronic selection program proSELECTA II - fast and easy.



If centrifugal fans are required for ventilation and air-conditioning technology, we are the first company you should speak with.

From housing fans with belt drive to built-in fans without housing with direct drive.

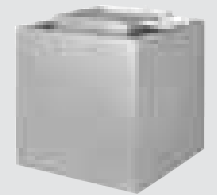
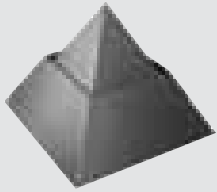
We offer the largest and most extensive product line for this area - and naturally also the matching system accessories.

Volume flows to 300,000 m³/h



Fans for comfort applications, also for process airtechnology

The extensive Nicotra-Gebhardt product line



The extensive roof fan product line from Nicotra Gebhardt has set worldwide standards.

Today we offer roof fan systems to meet your specific requirements.

Profit from the advantages of our product diversity:

- Perfect quality in all models
- Uniform accessories for all models
- Maximum variability for individual requirements

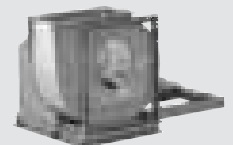
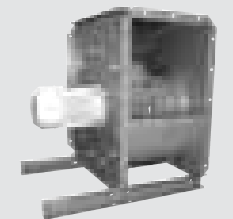
Volume flows to 57,000 m³/h

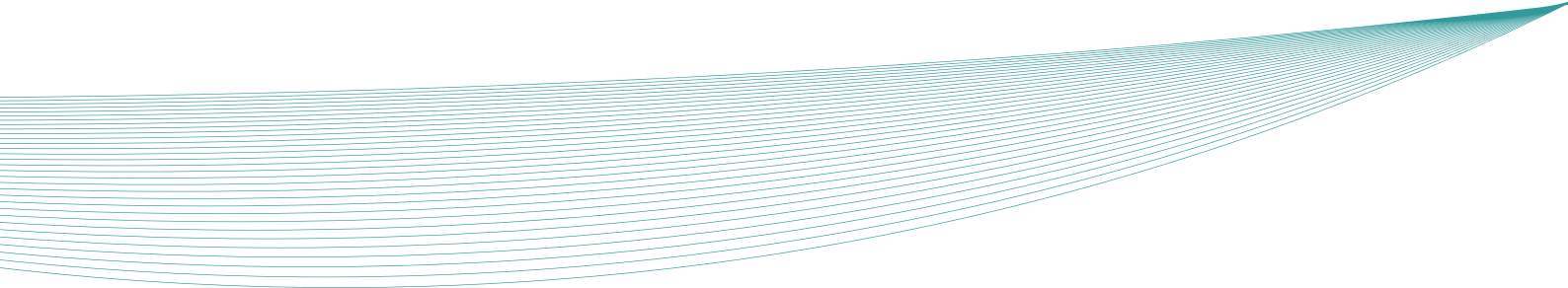


He who understands fire, masters the smoke extraction.

With our wall fans, roof fans, centrifugal fans, axial fans, and impulse fans, we master every form of smoke extraction, regardless of the application. Thus we ensure maximum safety from the underground garage to the roof and satisfy all legally required standards.

Volume flows to 150,000 m³/h





NICOTRA||Gebhardt

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