



# NYBORG - MAWENT



## CENTRIFUGAL FANS ZWPO

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## APPLICATION:

Centrifugal ZWPO fans are intended for pressing of inert gas in general ventilation systems and process lines. Allowable dust content must not exceed 0,3g/m<sup>3</sup>.

## CONSTRUCTION:

Main elements of the set such as: impeller, casing, base frame are made of standard steel of ordinary quality. In corrosion and heat-corrosion resistant executions the impeller and casing are made of steel with increased resistance to corrosion. On client's request other kinds of steel can be used.

## DRIVES:

- Direct drive (1) – up to 80°C
- Direct drive-C\* (1) – up to 220°C
- Indirect coupling drive (4) – up to 350°C

\*In case of heat-resistant execution up to 220°C in direct drive (1) please contact our sales department.

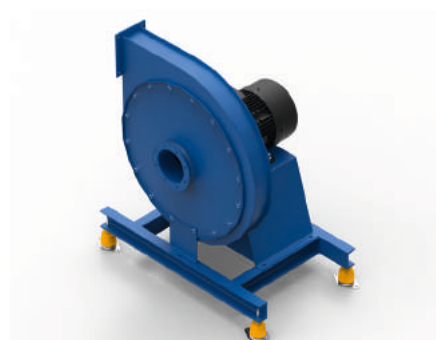
## PROTECTION AGAINST CORROSION:

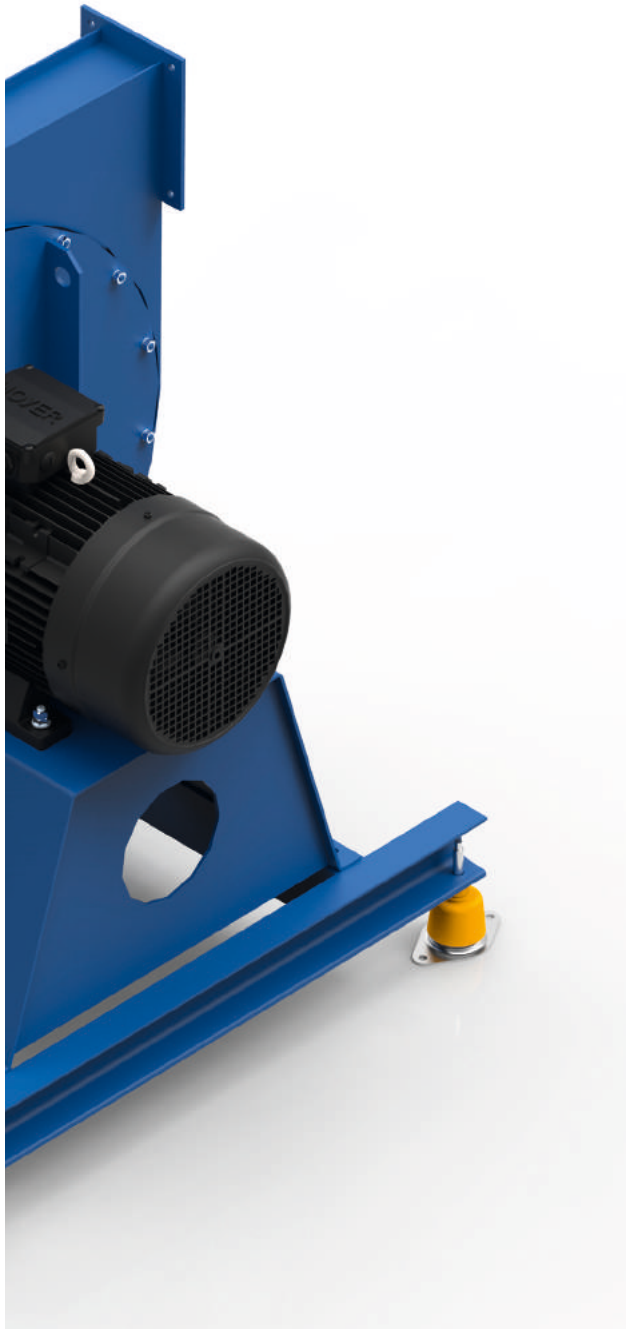
- Standard execution - painting with standard set of paints, C3 class, RAL 5009,
- Heat resistant execution - painting with a set of paints resistant to heat up to 350°C

Options: hot deep galvanizing, acid treatment, passivation, glass blasting, chemo-resistant painting and in C4 and C5 classes on Client's request

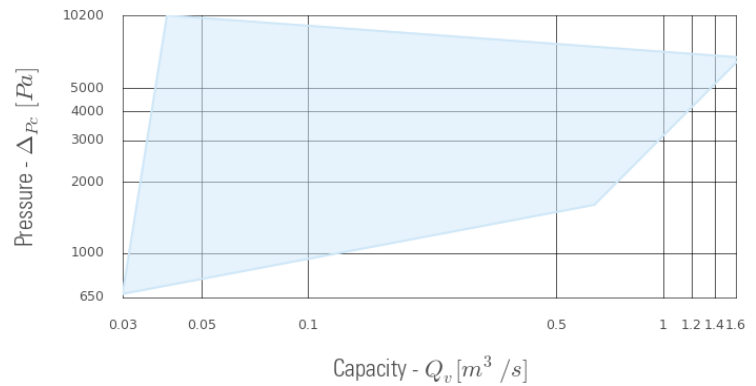
## MOTOR:

In standard the fans are driven by three-phase electric motors in IP55 execution, insulation class F, from world-renown producers. Ambient temperature must not exceed 40°C. Motors for special execution available on Client's demand.





## WORKING FIELD OF THE FAN:



## ATEX:

The explosion-proof fans are meant for operation in potentially explosive areas according to ATEX 94/9/WE directive.

Available executions:

- Zones 2 and 1 for gases (3G/2G)
- Zones 22 and 21 for dusts (3D/2D)

## MOUNTING POSITIONS:

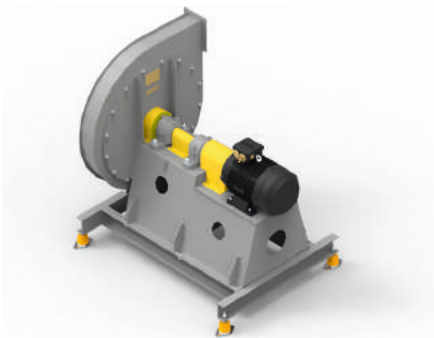
Each size of fan is produced with 8 locations of fan's outlet:

- Right: RD0, RD90, RS180, RD270
- Left: LG0, LG90, LG180, LG270

Other mounting positions available after contact with sales department.

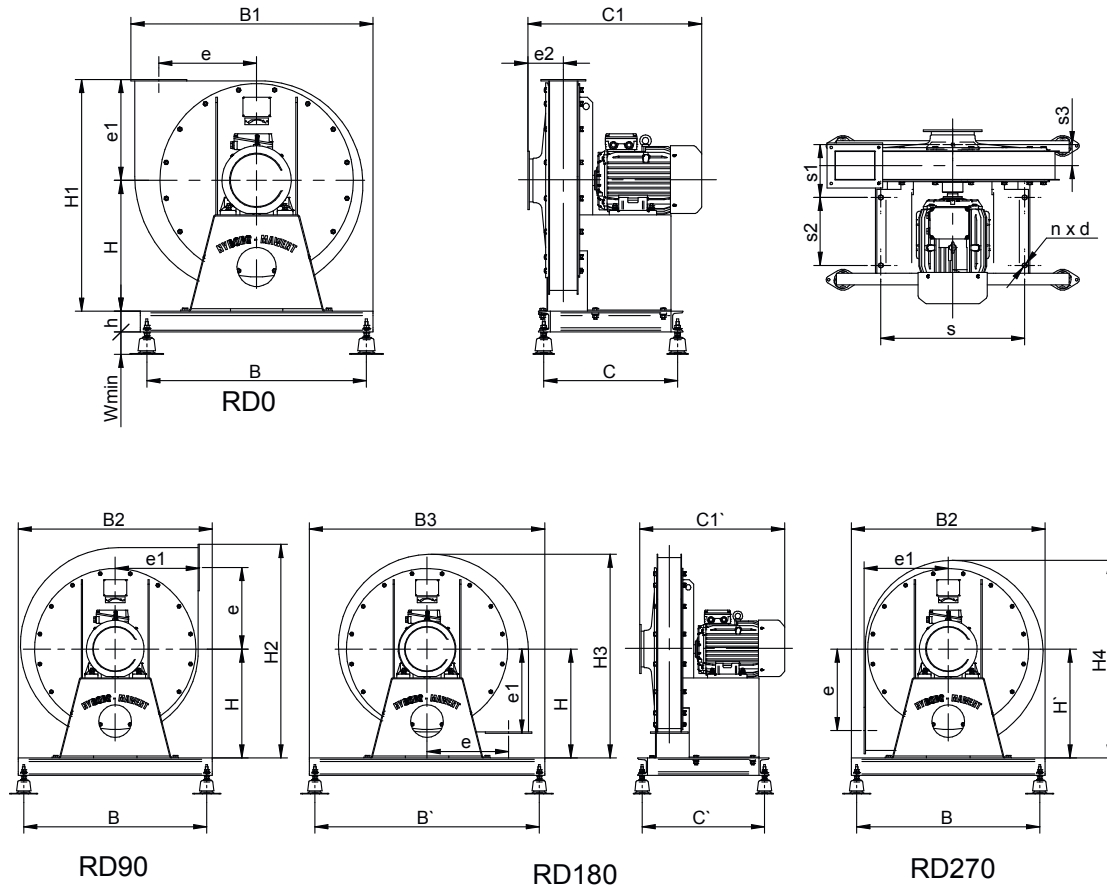
## ACCESSORIES:

Available accessories used for our fans are included in Fan's Accessories Catalogue.



*Due to constant improvement of our products we reserve the possibility of design changes which will increase their advantages and safety. Given dimensions are visual, we reserve the possibility of changes.*

# TECHNICAL DATA

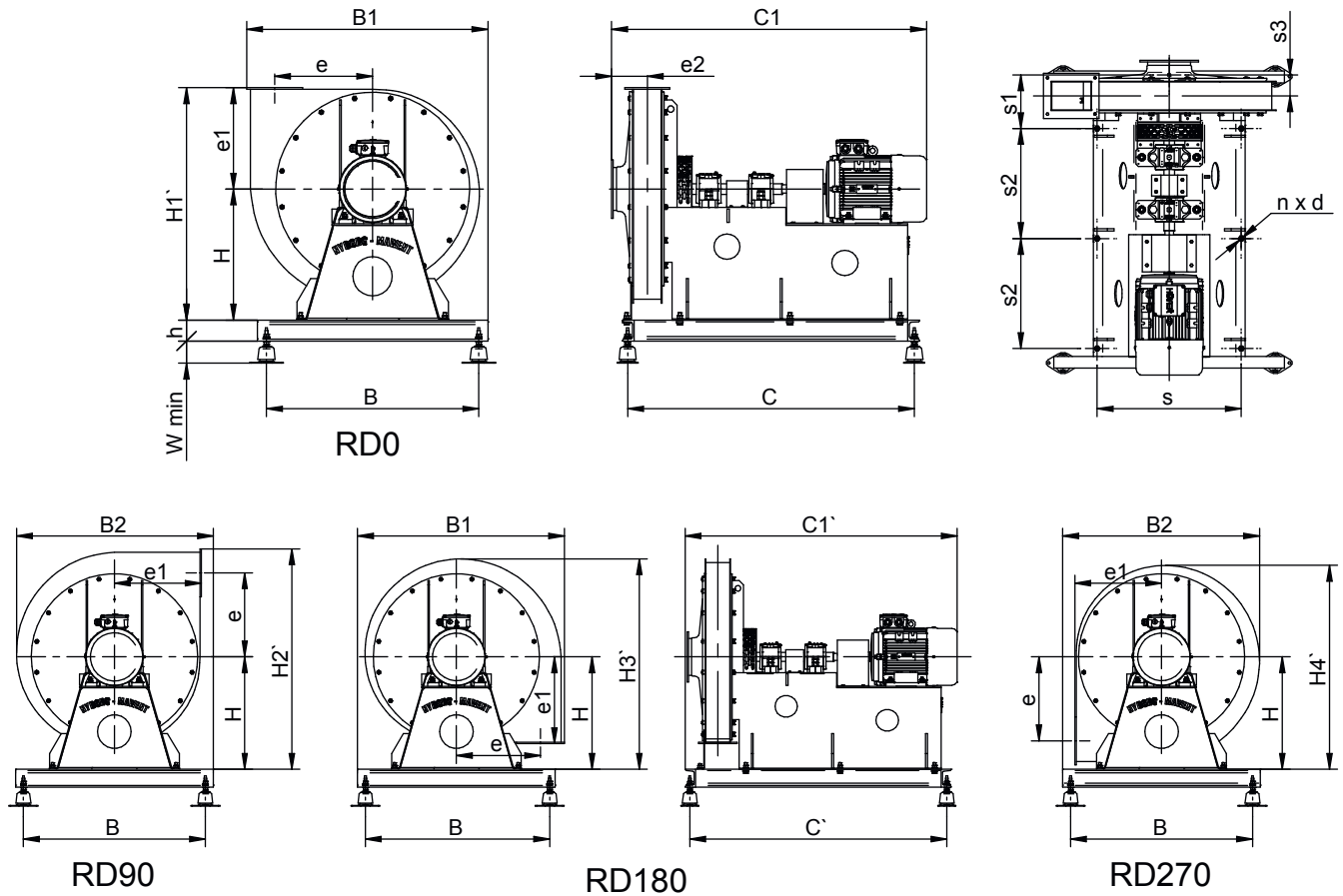


The drawing presents the fan in RD mounting position, LG is its mirror reflection.  
Visual drawing. We reserve the right to implement changes.

## FAN TYPE ZWPO 10-18 WITH DIRECT DRIVE (NAP.1)

ZWPO	Motor power [kW]	e	e1	e2	s	s1	s2	s3	H	H'	H1	H2	H3	H4	h	W	B	B'	B1	B2	B3	C	C'	C1	C1'	d	n	Impeller flywheel effect GD2 [Nm2]	Fan Weight [kg]
		[mm]														[szt.]	[Nm2]	[kg]											
10	0,55	235	242	92	450	-	190	-	335	577	646	607	589	80	85	740	740	707	790	790	391	445	451	451	14	4	5,5	69	
	1,10																											71	
12,5	0,75	292	302	107	450	166	190	67	400	702	782	702	743	80	85	740	835	777	790	885	406	456	472	497	14	5	13,0	85	
	2,20																											96	
14	0,75	326	336	112	450	176	190	72	450	786	874	837	812	80	85	740	915	818	790	965	416	466	562	587	14	5	20,9	102	
	5,5				550	186	260												832		496	546	580	605					
16	1,5	374	382	136	450	192	190	80	500	882	980	931	903	80	85	740	1030	877	826	1080	432	482	591	600	14	5	35,3	126	
	7,5				550	202	260												876		512	562	624	633					
18	2,2	420	427	146	450	204	190	86	560	987	1096	1044	1011	80	85	740	1140	932	879	1190	444	494	725	730	14	5	57,4	155	
	15				550	214	380												929		649	704	757	762					
18/20	15	420	555	138	596	248	311	84	497	537	1055	1022	956	100	100	680	1140	991	1041	1190	556	690	760	805	13	57,4	230		

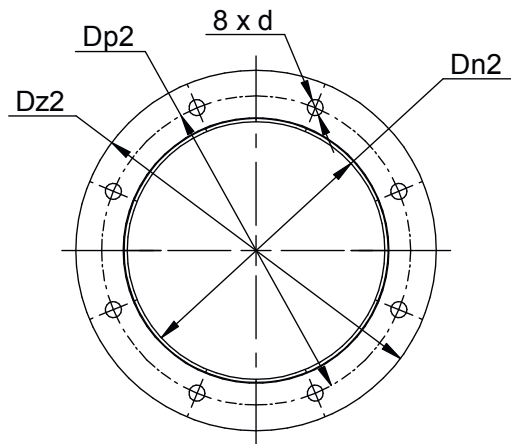
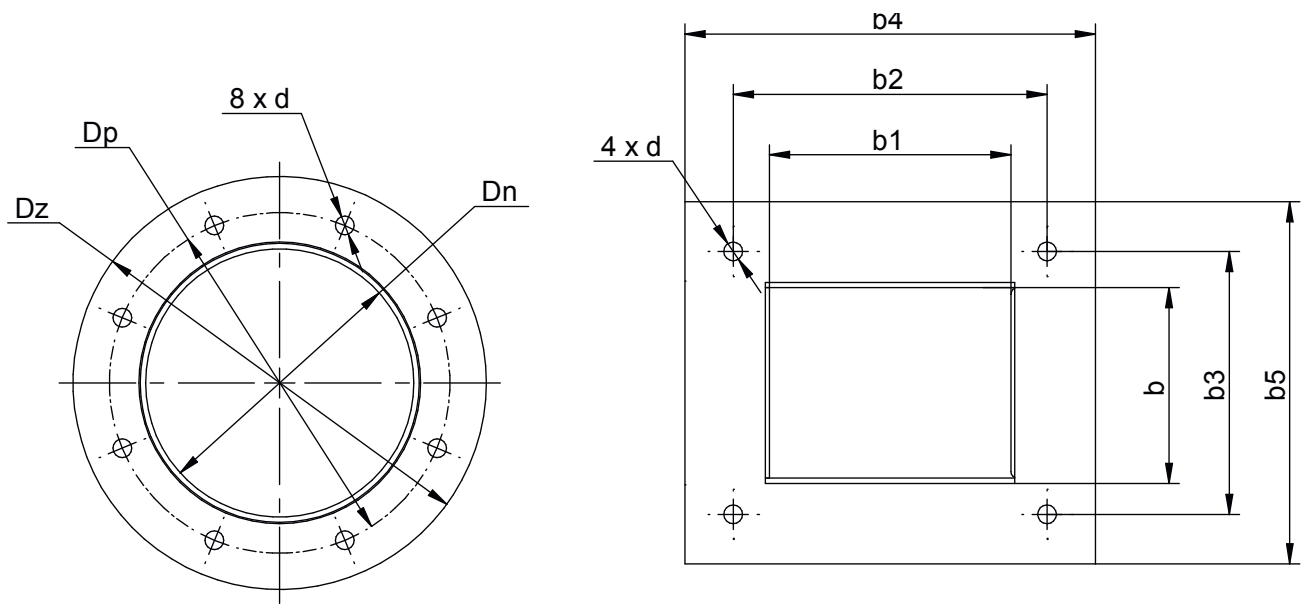
## TECHNICAL DATA



The drawing presents the fan in RD mounting position, LG is its mirror reflection.  
Visual drawing. We reserve the right to implement changes.

FAN TYPE ZWPO 10-18 WITH COUPLING DRIVE (NAP.4)																										
ZWPO	Motor power [kW]	e	e1	e2	s	s1	s2	s3	H	H1'	H2'	H3'	H4'	h	W	B	B1	B2	C	C'	C1	C1'	d	n	Impeller flywheel effect GD2 [Nm2]	Fan Weight [kg]
10	0,55	235	242	92	450	-	305	-	335	584	647	616	598	80	85	730	730	730	720	790	873	12	6	5,5	109	
	1,10																								111	
12,5	0,75	292	302	107	450	177	305	67	400	706	717	682	724	80	85	730	747	730	837	887	892	927	12	6	13,0	159
	2,20																									165
14	0,75	326	336	112	450	187	305	72	450	790	824	786	811	80	85	730	788	752	847	887	904	927	15	6	20,9	153
	5,5																									184
16	1,5	374	382	136	450	204	305	80	500	885	930	838	909	80	85	730	847	796	864	914	969	978	15	6	35,3	215
	7,5																									258
18	2,2	420	427	146	490	216	325	86	560	991	1036	940	1018	100	85	770	922	869	921	976	1049	1112	19	6	57,4	279
	15																									347

# TECHNICAL DATA



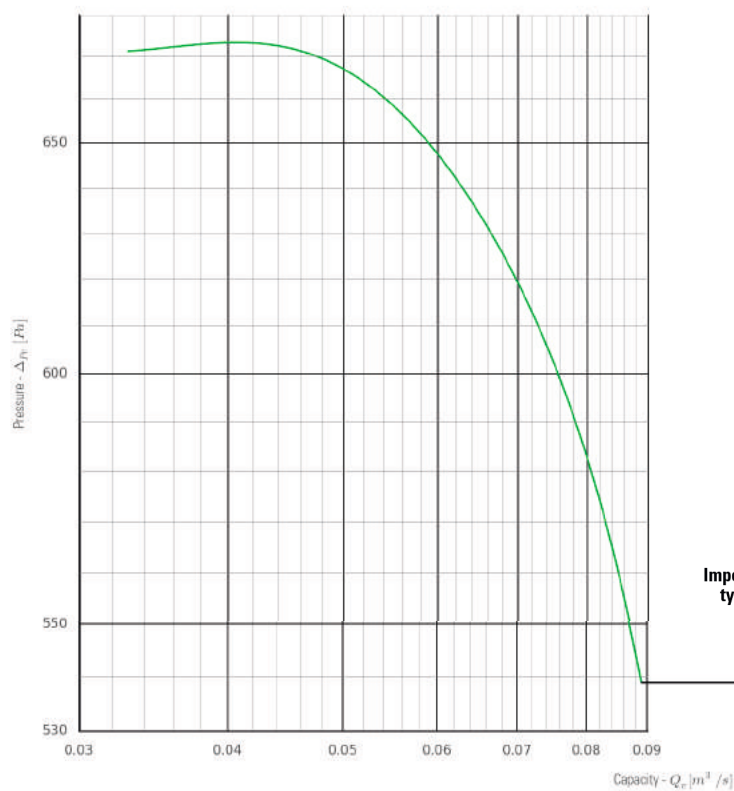
WPO 18/20

Visual drawing. We reserve the right to implement changes.

## FLEXIBLE CONNECTIONS

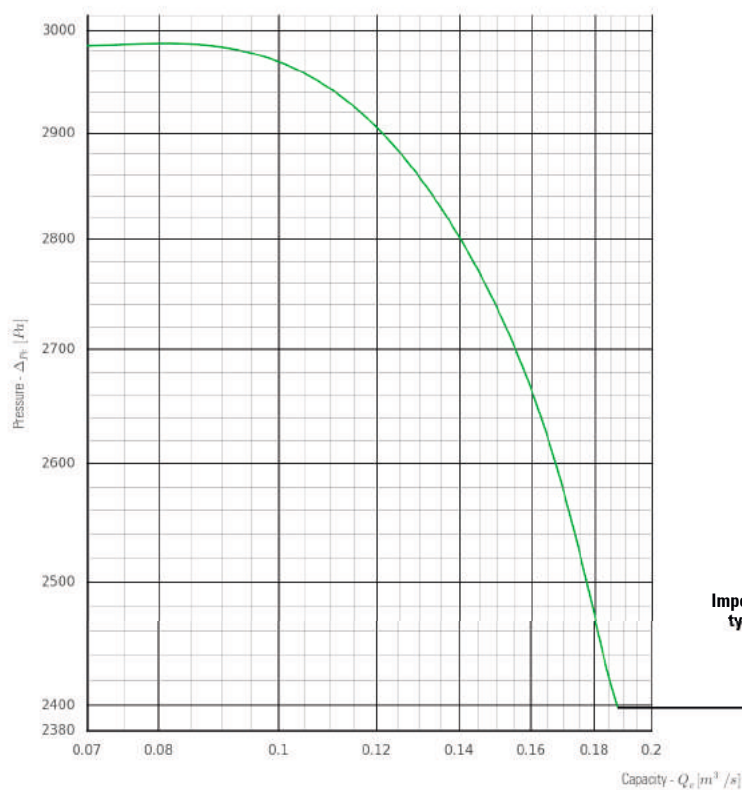
ZWPO	Motor power [kW]	Dn	Dp	Dz	Dn2	Dp2	Dz2	b [mm]						d
								b	b1	b2	b3	b4	b5	
10	0,55	100	127	154				71	90	117	98	153	135	7
	1,1													
12,5	0,75	125	157	189				80	118	150	112	181	144	10
	2,2													
14	0,75	140	172	204	-	-	-	90	132	164	122	195	154	10
	5,5													
16	1,5	160	192	224				106	150	182	138	213	172	10
	7,5													
18	2,2	180	219	244				118	170	208	156	233	184	10
	15													
18/20	15	200	239	265	160	192	224	-	-	-	-	-	-	-

## FLOW CHARACTERISTICS



### ZWPO-10

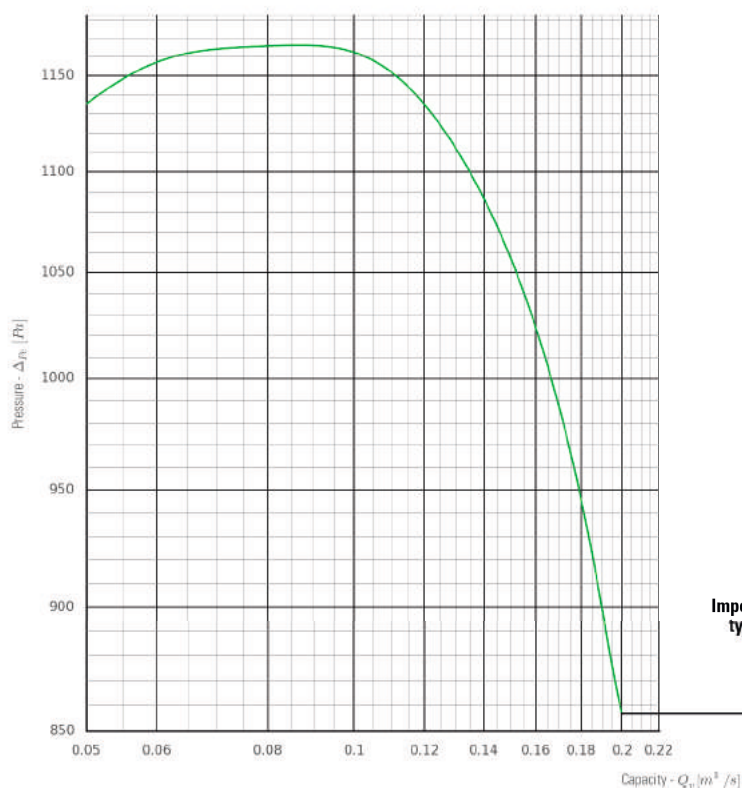
Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	1380	0,09	62	80-4A	0,55



### ZWPO-10

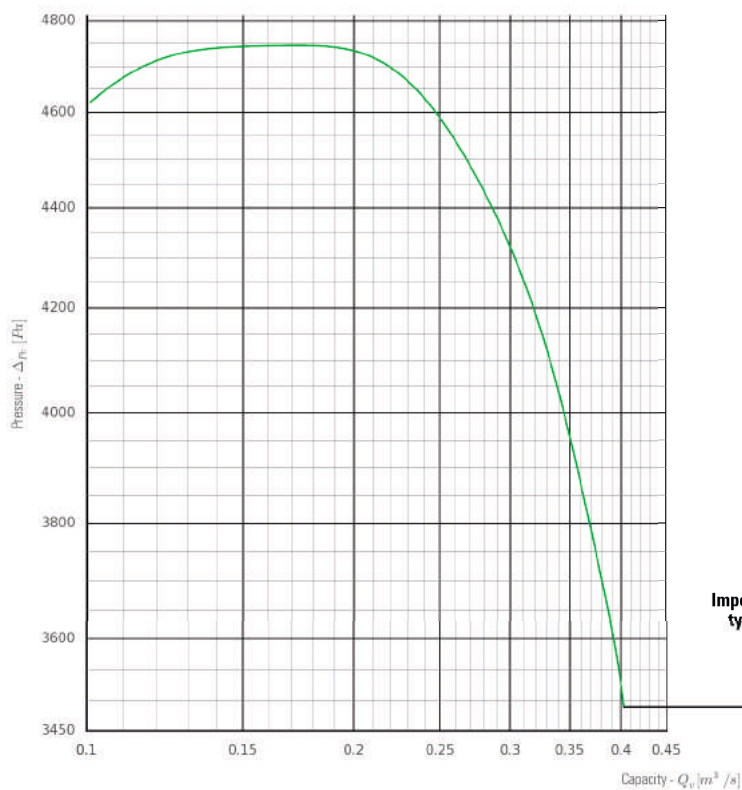
Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	2910	0,82	80	80-2B	1,1

## FLOW CHARACTERISTICS



**ZWPO-12.5**

Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	1445	0,27	60	80-4B	0,75

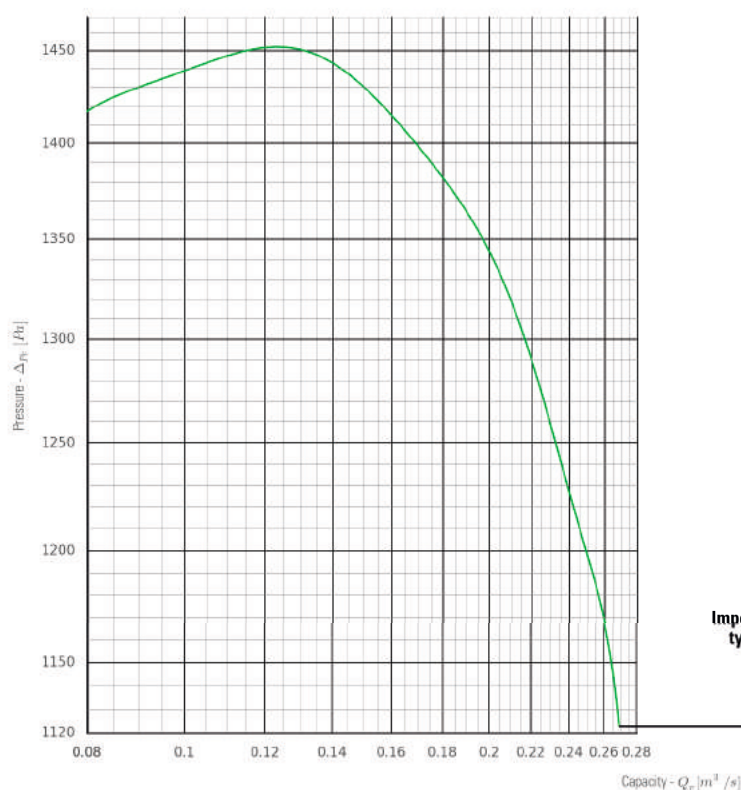


**ZWPO-12.5**

Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	2915	1,99	86	90L-2	2,2

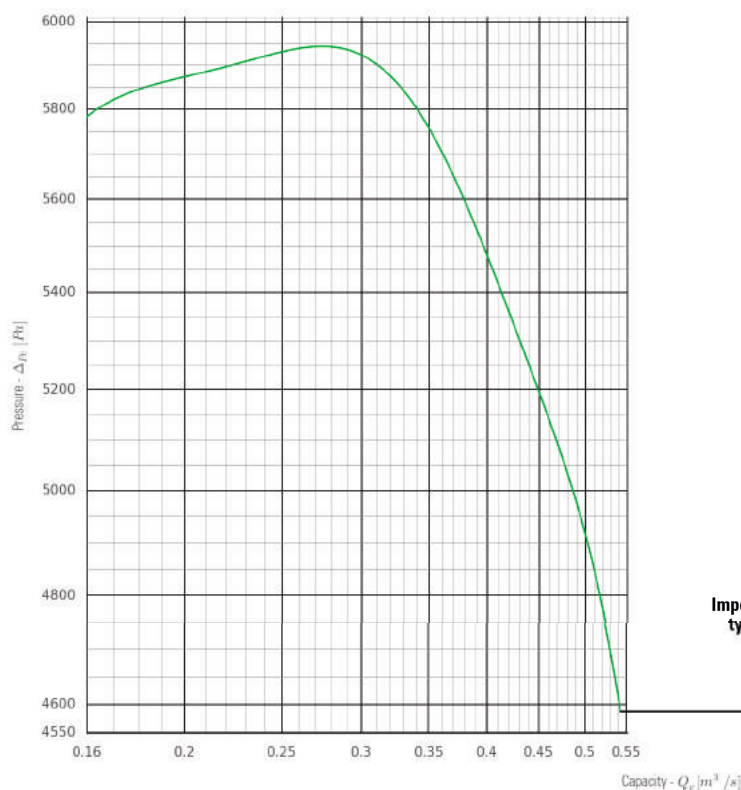


## FLOW CHARACTERISTICS



### ZWPO-14

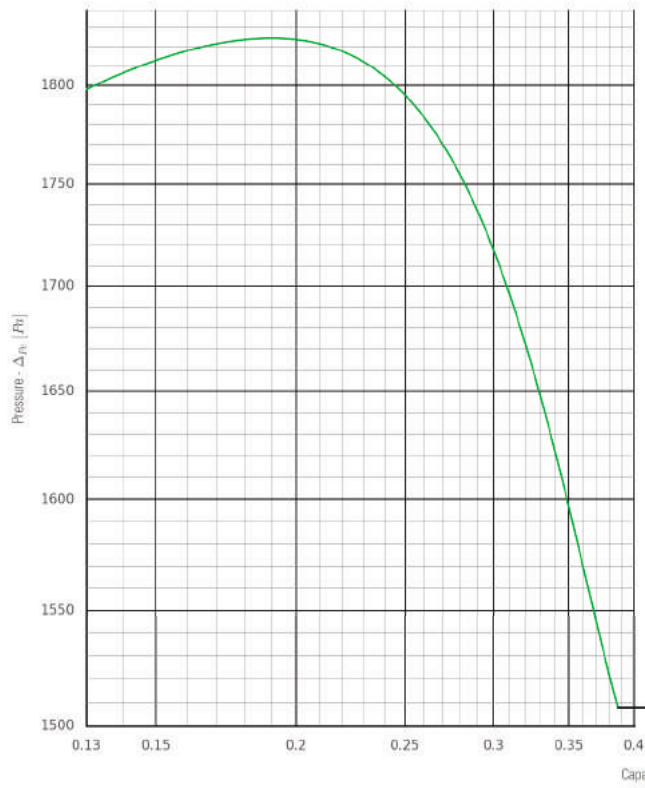
Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	1445	0,49	71	80-4B	0,75



### ZWPO-14

Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	2920	4,07	89	132S-2A	5,5

## FLOW CHARACTERISTICS



### ZWPO-16

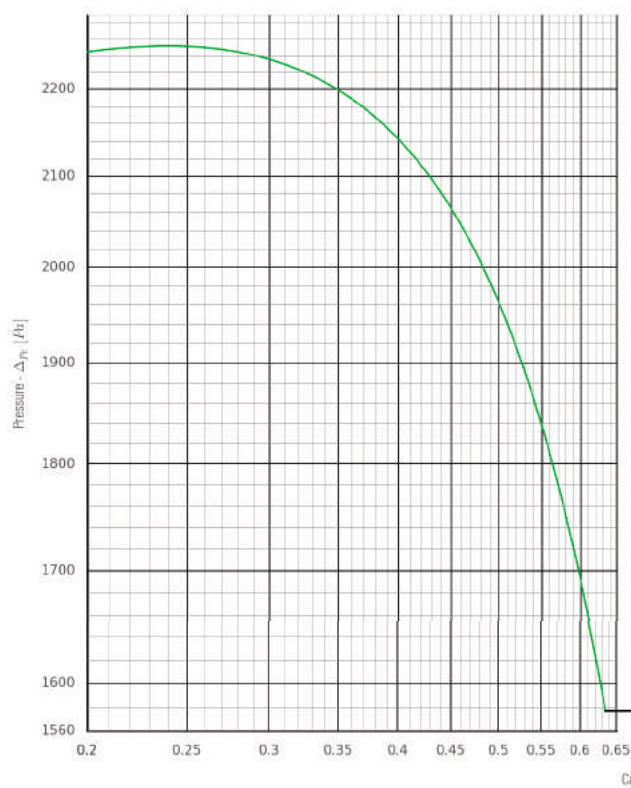
Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	1440	0,88	74	90L-4	1,5



### ZWPO-16

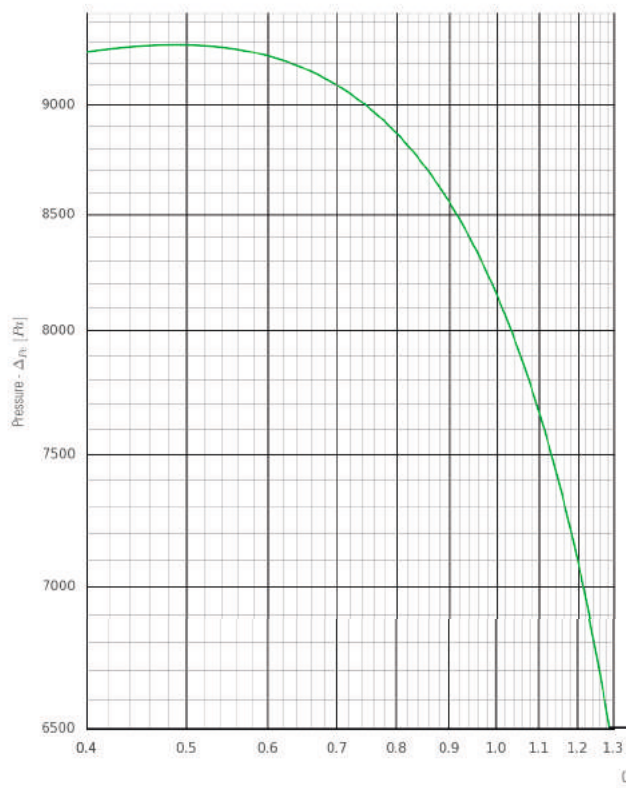
Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	2925	6,82	91	132S-2B	7,5

## FLOW CHARACTERISTICS



**ZWPO-18**

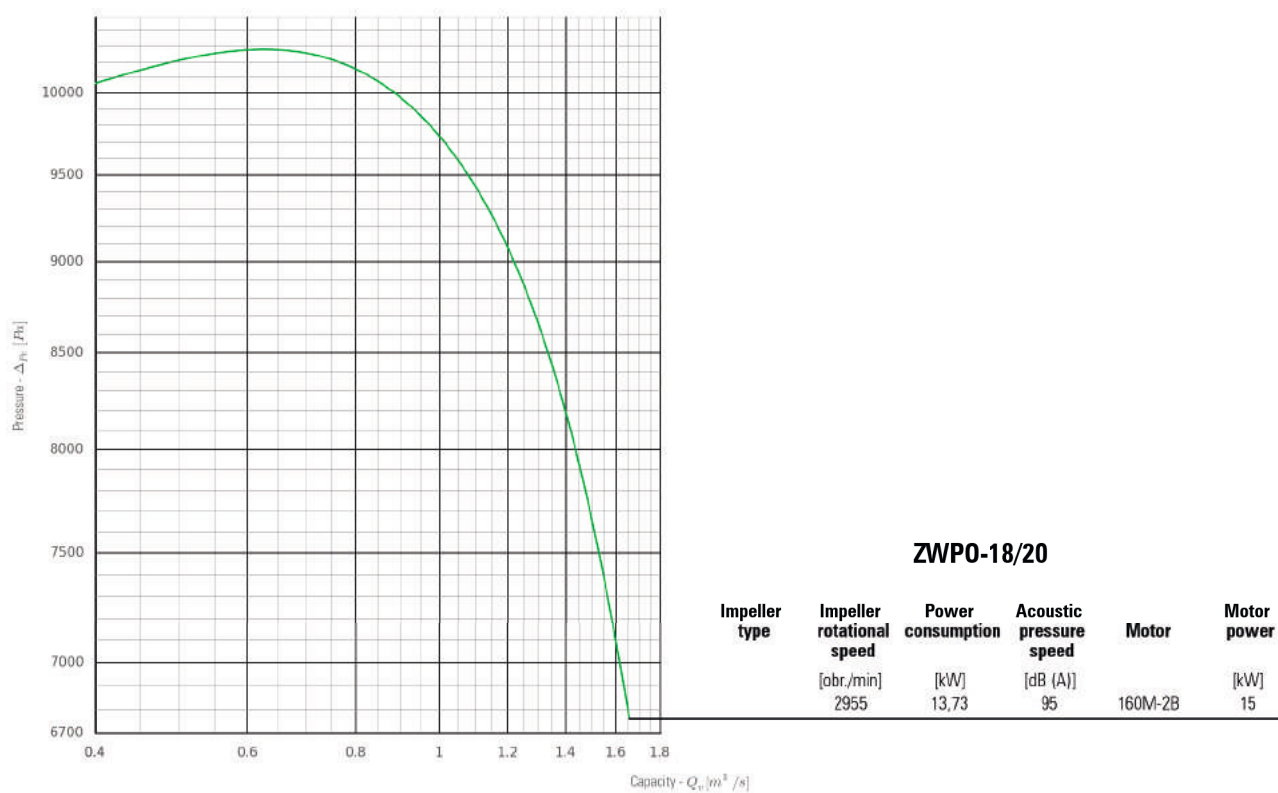
Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	1455	1,54	77	100L-4A	2,2



**ZWPO-18**

Impeller type	Impeller rotational speed	Power consumption	Acoustic pressure speed	Motor	Motor power
	[obr./min]	[kW]	[dB (A)]		[kW]
	2955	13,19	95	160M-2B	15

## FLOW CHARACTERISTICS



Attention: for smaller resistances of the fan's installation  $DP_c < 9350$  Pa and capacity  $Q_v > 1,15$  m<sup>3</sup>/s the motor with power exceeding 15 kW shall be used.



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