



GARDNER DENVER S.r.l.
Via S.Leonardo, 71/A - 43122 Parma
Tel. +39 0521 274911
E-mail: info@roboschi.com
Internet: http://www.roboschi.com



SELECTION

International Measuring System (S.I.)

Soft.Ver. :13.0.21
D.B.Ver. :19.3.26002
Date :07.29.2020
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MODEL : ES 145 /5 P

Quantity :

GENERAL DATA

Ref.	:	Plant	:
Customer	:	Item	:
		Service	: Waste water treatment

FLUID

Fluid	: Atmospheric air				
Spec. W.ght (kg/m ³)	: 1.199	Spec. Heat Cp (kJ/kg°C)	: 1.010	Spec. Heat Cv (kJ/kg°C)	: .723
Altitude (m)	: 0	Pressure (mbar)	: 1,013	Temperature (°C)	: 20
Relative humidity (%)	: 50				

TECHNICAL DATA

Delivery (m ³ /h)	Q1 : 8,193 FAD	*Delivery (Nm ³ /h)	Q2 : 7,297	*Delivery (kg/h)	Q3 : 9,432
		***Delivery T (Nm ³ /h)	Q2T : 7 382	***Delivery T (kg/h)	Q3T : 9 504
Delivery (m ³ /h)	Q4 :	*Delivery (Nm ³ /h)	Q4 :	*Delivery (kg/h)	Q4 :
Speed (rpm)	n4 :	***Delivery T (Nm ³ /h)	Q4T :	***Delivery T (kg/h)	Q4T :
Dif.pressure (mbar)	DP : 600	Inlet press. (mbar a)	P1 : 1,013	Outlet pres.(mbar a)	P2 : 1,613
Temp.rise(°C)	DT : 61	Inlet temp.(°C)	T1 : 30	Outlet temp.(°C)	T2 : 91
		Spec.W.ght (kg/m ³)	SW : 1.160	H2O injection (lt/min)	ia : .00
Abs.ed Power (kW)	N : 173.2	**Sound Pressure Level (dBA)	: 79	Heat radiation (kW)	Wd : 10.6
Speed (rpm)	n : 1,777	n/nmax (%)	: 89		
Volumetric efficiency (%)	: 88.0	Adiabatic efficiency (%)	: 84.0	Total efficiency (%)	: 66.2

*The Nm³/h and kg/h capacity are referred to the dry part of the conveyed gas/vapour mixture according DIN 1343

**Estimated sound pressure level at 1 m, free field with soundproof piping

***The Nm³/h and kg/h capacity are referred to total conveyed gas/vapour mixture

Performances tolerances following the Robuschi procedure TE1.S.0015 (Q1 = ±5% * nm³/n ; N = ± 5%)

ELECTRIC MOTOR

IEC Motor	: 315MD	Hz	: 50
Power (kW)	: 200.0	Poles	: 4
Speed (rpm)	: 1,485	Size	:
		V	: 380-420 D / 660-690 Y

TRANSMISSION

Coupling type	:		
V-belt type	: XPC	Length (mm)	: 3,350
Grooves	: 8	Mot.pulley Diam. (mm)	: 335
(Int.Code C549)		(Int.Code 235M)	
		Shaft centres (mm)	: 1,192
		Blower pulley diam. (mm)	: 280
		(Int.Code S232)	

WARNING

No warning

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		Service	: Waste water treatment

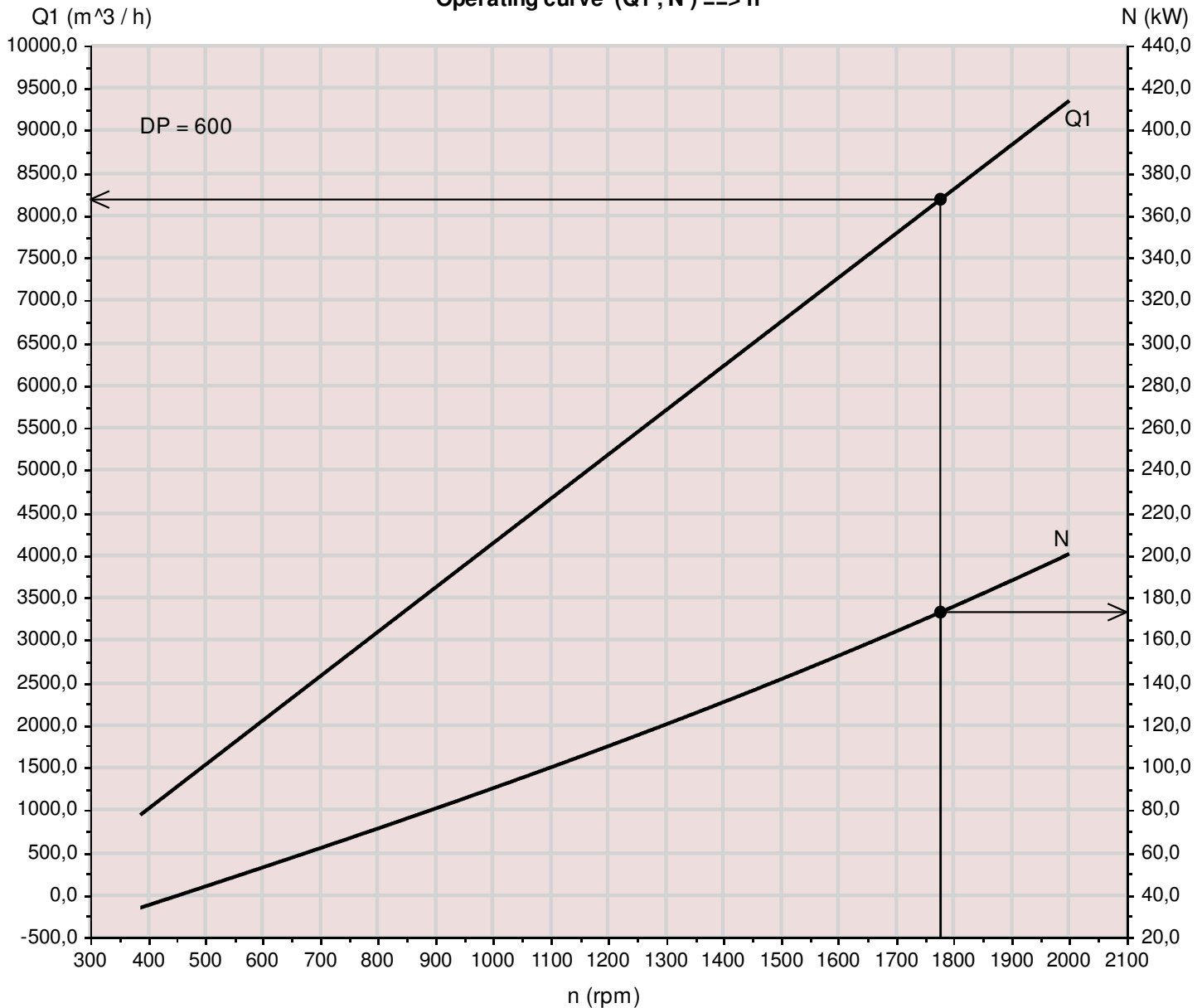
FLUID

Fluid	: Atmospheric air				
Spec. W.ght (kg/m ³)	: 1.199	Spec. Heat Cp (kJ/kg°C)	: 1.010	Spec. Heat Cv (kJ/kg°C)	: .723
Altitude (m)	: 0	Pressure (mbar)	: 1,013	Temperature (°C)	: 20
Relative humidity (%)	: 50				

OPERATION POINT

Inlet press. (mbar a)	P1 : 1,013	Inlet temp.(°C)	T1 : 30	Spec.W.ght (kg/m ³)	SW : 1.160
Delivery (m ³ /h)	Q1 : 8,193	Dif.pressure (mbar)	DP : 600	Cp / Cv	: 1.4
Abs.ed Power (kW)	N : 173.2	Speed (rpm)	n : 1,777	n/nmax (%)	: 89

Performances tolerances following the Robuschi procedure TE1.S.0015 (Q1 = ±5% * nmx/n ; N = ± 5%)

Operating curve (Q1 , N) ==> n

MODEL : ES 145 /5 P

Quantity :

GENERAL DATA

Ref.	:	Plant	:
Customer	:	Item	:
		Service	: Waste water treatment

FLUID

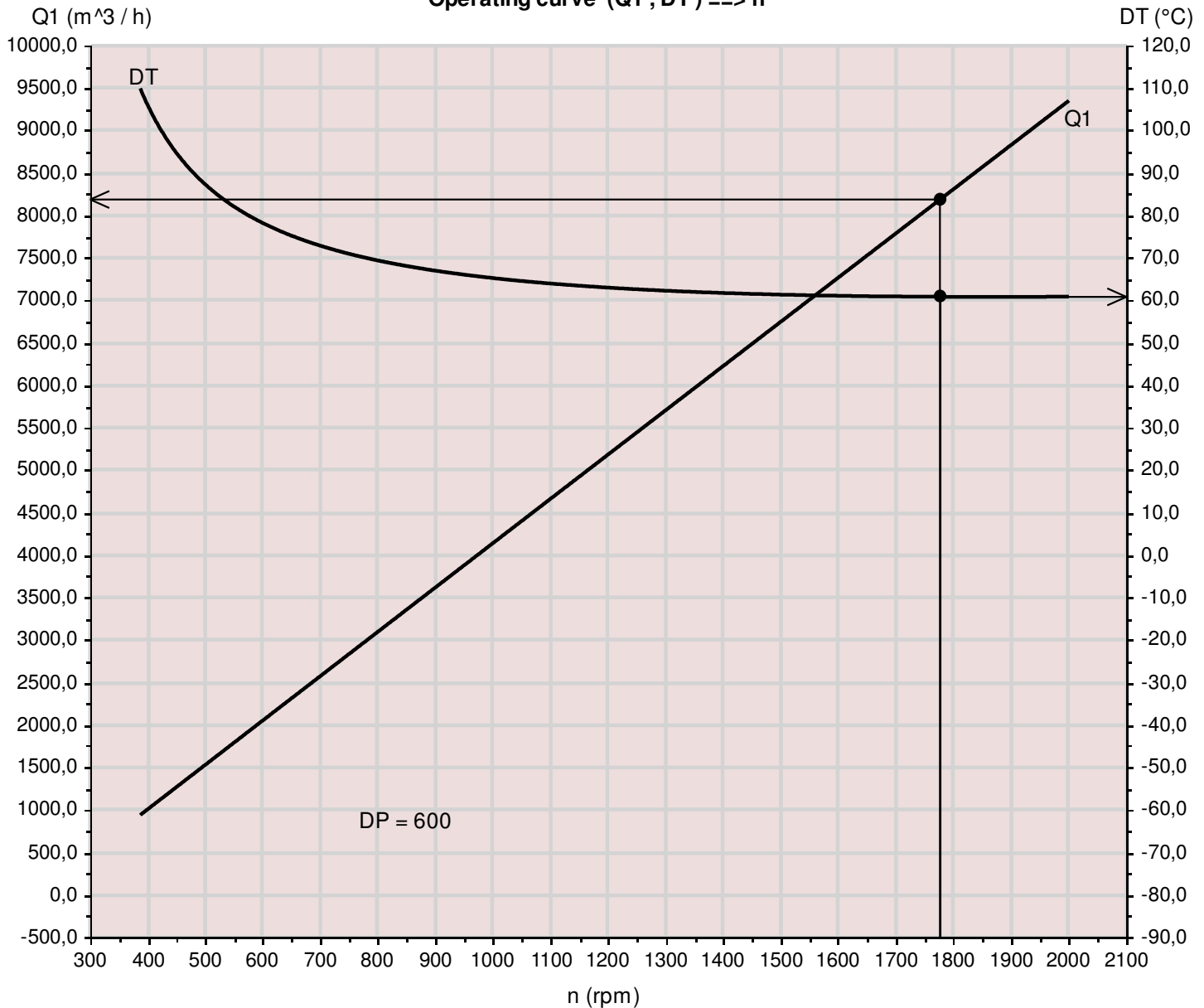
Fluid	: Atmospheric air				
Spec. W.ght (kg/m ³)	: 1.199	Spec. Heat Cp (kJ/kg°C)	: 1.010	Spec. Heat Cv (kJ/kg°C)	: .723
Altitude (m)	: 0	Pressure (mbar)	: 1,013	Temperature (°C)	: 20
Relative humidity (%)	: 50				

OPERATION POINT

Inlet press. (mbar a)	P1 : 1,013	Inlet temp.(°C)	T1 : 30	Spec.W.ght (kg/m ³)	SW : 1.160
Delivery (m ³ /h)	Q1 : 8,193	Dif.pressure (mbar)	DP : 600	Cp / Cv	: 1.4
Temp.rise(°C)	DT : 61	Speed (rpm)	n : 1,777	n/nmax (%)	: 89

Performances tolerances following the Robuschi procedure TE1.S.0015 (Q1 = ±5% * nm_x/n ; N = ± 5%)

Operating curve (Q1 , DT) ==> n



MODEL : ES 145 /5 P

Quantity :

GENERAL DATA

Ref.	:	Plant	:
Customer	:	Item	:
		Service	: Waste water treatment

TECHNICAL DATA

Blower	: ES 145 /5 P	Power (kW)	: 173.2	Speed (rpm)	: 1,777	J (kgm ²)	: 4.500
Motor	: 315MD	Power (kW)	: 200.0	Speed (rpm)	: 1,485	J (kgm ²)	: 3.100
Motor Pulley	: 8 XPC	Diameter (mm)	: 335			J (kgm ²)	: .000
Blower Pulley	: 8 XPC	Diameter (mm)	: 280			J (kgm ²)	: .000
Mot. Coupling	:	Size	:			J (kgm ²)	: .000
Gear box	:					J (kgm ²)	: .000
Blower coupling	:	Size	:			J (kgm ²)	: .000

Torque at motor shaft T (Nm)	: 1,147.3	V-belt load (N): 10,274	J tot. (kgm²)	: 9.544
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