ASPC Project

END CUSTOMER	:	**Arya Sasol Polymer Company**
CONTRACTOR	:	**DYPNF Co., Ltd.**
VENDOR NAME	:	**Airpack Netherlands BV**
EQUIPMENT DESCRIPTION	:	**Screw Compressor & Roots Blower Package**
PURCHASE ORDER NUMBER	:	**PO-PC2312-08**

Customer Document Number : 3944-VD-0171-DYP-RE-400-DSH-0019

Airpack Document Number : 23383-11B

Document Title : Compressor data sheets

Review Code and Status			Contractor Initials/Signature	Date signed
	Code 1	**REJECTED** - Vendor to revise and Resubmit. Work cannot proceed		
	Code 2	Comments As Noted - Work May proceed, subject to compliance with and incorporation of comments		
	Code 3	No Comments - Work may proceed.		
	Code 4	Information only - Review not required.		

01	Issued for Approval	15-05-2025	SC	KP	JJ
00	Issued for Approval	18-03-2025	SC	KP	JJ
Rev. No.	Description	Date	Prepared by	Checked by	Approved by

1	VENDOR (COMPRESSOR) :	**Airpack Netherlands B.V.**			REFERENCE :	**23383-COM**					
2	TYPE / MODEL :	**Aerzen VM100**			SERIAL NO. :	**T-2025-00804/00805**					
3	SERVICE :	**Nitrogen compressor**			OPERATION :	**Continuous**					
4	QUANTITY :	**2 (1+1)**									
5	**INLET CONDITIONS**				**PACKAGE SCOPE OF SUPPLY**						
6	GAS HANDLED :	**Nitrogen**			COMPRESSOR TYPE :	**Oil free screw**					
7	**INLET CONDITIONS**				DRIVER TYPE :	**MV motor**					
8	PRESSURE	bar(g)	**0,05**		COUPLING / GUARD :	**Flexible / Non-sparking**					
9	TEMPERATURE	°C	**48**		RCU AND SAFETY SWITCHES FOR MOTORS:	**N/A**					
10	REL. HUMIDITY	%	**0**		INTAKE FILTER / SILENCER:	**By others / Included**					
11	OPERATING DENSITY	kg/m3	**1,1**		INTERCOOLING:	**N/A**					
12	MOLECULAR MASS	g/mol	**28**		AFTERCOOLER:	**N/A**					
13	Cp/Cv		**1,4**		LUBE-OIL COOLER:	**Air-cooled**					
14	Z		**1**		LUBE-OIL FILTER:	**Included**					
16	VISCOSITY	PaS	**1.92*10^-5**		AUTO CONDENSATE TRAP:	**N/A**					
17	**DISCHARGE CONDITIONS**				AIR DRYER:	**N/A**					
18	PRESSURE	bar(g)	**1,89**		NITROGEN GENERATOR:	**N/A**					
19	FLOW RATE	Nm³/h	**6416**		BLOW-OFF SILENCER:	**N/A**					
20	TEMPERATURE	°C	**189**		CONTROL PANEL:	**LPS and Junction box**					
21	CONNECTION		**ANSI 10" 150# RF**		VIBRATION MONITOR:	**N/A**					
22	**COMP. PERFORMANCE**				INTERCONNECTING PIPEWORK & VALVES :	**N/A**					
23	SPEED	rpm	**6994**		ACOUSTIC ENCLOSURE:	**Included**					
24	ABSORBED POWER	kW	**356**		FOUNDATION BOLTS:	**Included**					
25	TYPE		**Oil free screw**		RECEIVER VESSELS:	**N/A**					
26	DESIGN TEMP/PRESS	°C/bar(g)	**-10-280 / 5**		LIGHTING:	**N/A**					
27	COMPRESSION RATIO		**2,73**		BASEPLATE	**Included**					
28	VOL. EFFICIENCY	%	**TBD**		FIRST OIL FILLING	**Included**					
	NOISE @ 1M	dBA	**80**								
29	**DRIVER PERFORMANCE**				**UTILITY SUPPLIES**						
30	OPERATING SPEED	rpm	**2988**		ELECTRICAL SUPPLY :						
31	RATING	kW	**450**		V	**6000**	PH	**3**	Hz	**50**	
32	MANUFACTURER		**WEG**		V	**400**	PH	**3**	Hz	**50**	
33	NO. OF POLES		**2**		V	**230**	PH	**1**	Hz	**50**	
34	DRIVE		**DIRECT**		COOLING MEDIUM :		**AIR**				
35			**NOTE 1**		TEMPERATURE:		**AMBIENT**				
36					PRESSURE:		**AMBIENT**				
37	**SITE CONDITIONS**				**WEIGHTS AND DIMENSIONS**						
38	ELEVATION	m	**<1000**		COMPRESSOR	kg	3716				
39	AMB. TEMPERATURE	°C	**5-48**		DRIVER	kg	4100				
40	AMB. PRESSURE	bar(g)	**0**		MISCELLANEOUS	kg	TBD				
41	REL. HUMIDITY	%	**65-100**		TOTAL	kg	+/-12000				
42	AREA CLASSIFICATION		**Zone 2 group IIB, T3**								
43	NOISE LIMITATION	dBA	**85**		SIZE	mm	L X W X H	TBD			
44											
45											
46					**BEARING HOUSING**						
47	**CASING**				TYPE	**ANTI-FRICTION**					
48	MATERIAL		**EN-GJL-250**		BALL / ROLLER	**ROLLER**					
49	COOLING		**AIR-COOLED**								
50	DRIVE DIRECTION		**CW**		**LUBRICATION**						
51					LUBE SYSTEM :		**FORCED, GEAR PUMP**				
52					LUBE OIL PUMP DRIVE :	kW	**DRIVEN BY GEARBOX**				
53	**ROTORS**				SYSTEM OIL CAPACITY	L	**TBD**				
54	NO. OF LOBES MALE		**4**		LUBE OIL COOLER		**AIR-COOLED**				
55	NO. OF LOBES FEMALE		**6**		LUBE OIL FILTER		**INCLUDED**				
56	MATERIAL		**C45N**		THERMOSTATIC VALVE		**YES**				
57											
58	**TIMING GEARS**				**STANDARDS AND SPECIFICATIONS**						
59	MATERIAL		**16 Mn Cr5**		Compressor: Mfr. Std.						
60	TYPE		**HELICAL, TEETH HARDENED**								
61	**SEALING**				**INSTRUMENTATION**						
62	SHAFT SEALING TYPE		**LABYRINTH**		FUNCTION		TYPE(S)				
63	CONVEYING CHAMBER SEAL TYPE		**PISTON RING LABYRINTH**		COMPRESSOR INLET PRESSURE		GAUGE & TRANSMITTER				
65	**SKID / COMPRESSOR CONNECTIONS (ANSI)**				COMPRESSOR DISCHARGE TEMPERATURE		TRANSMITTER				
66	NOZZLE	SIZE	RATING	FACING	POSITION	COMPRESSOR DISCHARGE PRESSURE		GAUGE & TRANSMITTER			
67	NITROGEN INLET	**12"**	**150#**	**RF**	**TOP**	COMPRESSOR OIL TEMPERATURE		TRANSMITTER			
68	NITROGEN DISCHARGE	**10"**	**150#**	**RF**	**TOP**	COMPRESSOR OIL PRESSURE		GAUGE & TRANSMITTER			
69	PSV OUTLET	**6"**	**150#**	**RF**	**TOP**	COMPRESSOR ENCLOSURE TEMPERATURE		TRANSMITTER			
70						COMPRESSOR OIL LEVEL		SIGHT GLASS			
70						MAIN MOTOR TEMPERATURE (BEARINGS AND WINDINGS)		RTD			
71	**NOTES : 1: FOR MORE INFORMATION ABOUT THE DRIVER REFER TO 3944-VD-0171-DYP-RE-400-LST-0004**										
72											

Aerzener Maschinenfabrik GmbH
Reherweg 28 - D-31855 Aerzen - Telefon (0 51 54) 81 0 - info@aerzener.de - www.aerzener.com

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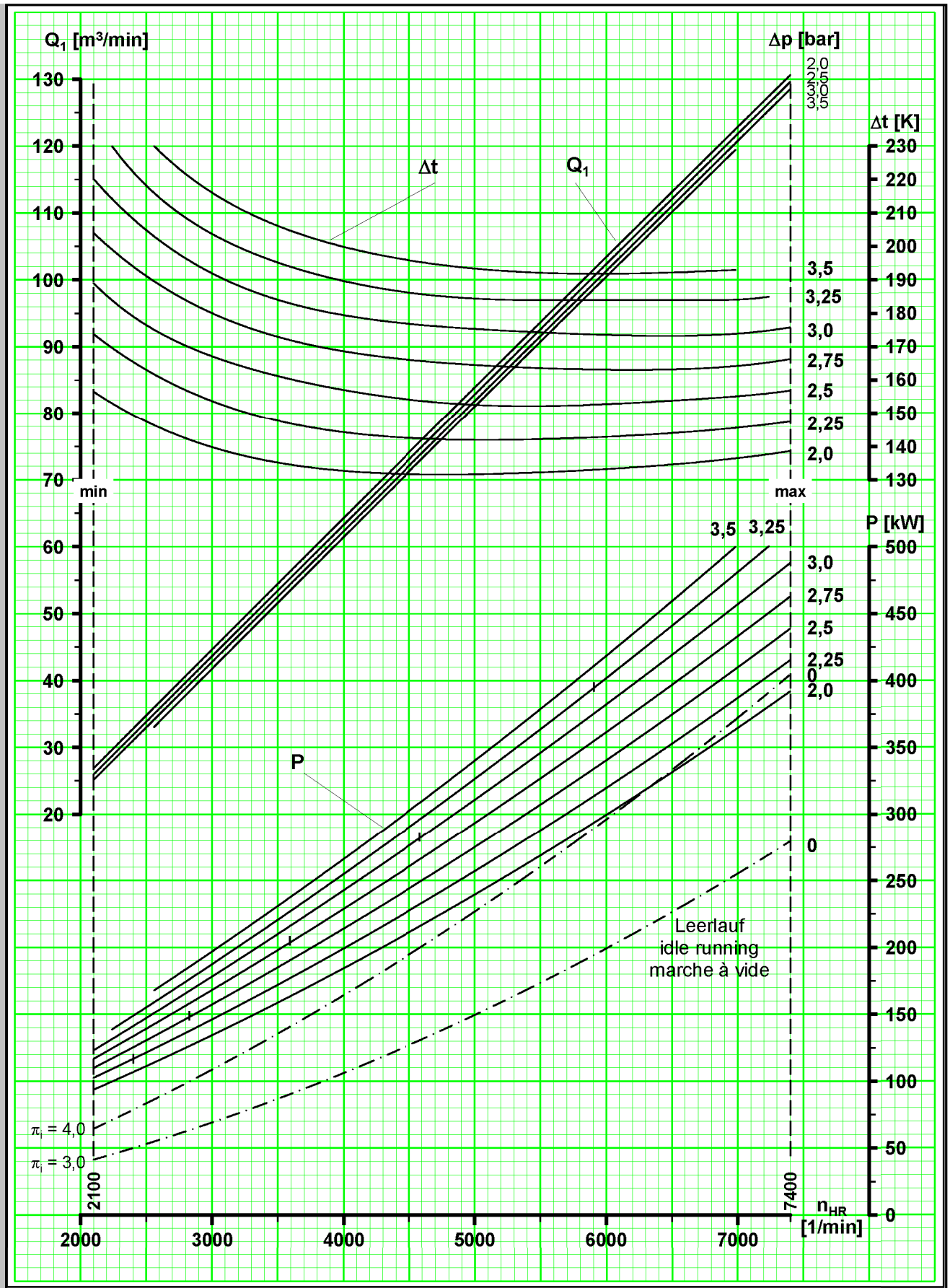


Q_1 : Ansaugvolumenstrom (Luft) bei p_1 = 1,0 bar und t_1 = 20°C	intake volume flow (air) at p_1 = 1.0 bar and t_1 = 20°C	débit aspiré (air) pour p_1 = 1,0 bar et t_1 = 20°C
n_{HR} : Hauptrotordrehzahl	main rotor speed	vitesse du rotor principal
n_V : Antriebswellendrehzahl	drive shaft speed	vitesse de l'arbre d'entraînement
P : Leistungsbedarf an der Kupplung	power required at the coupling	puissance absorbée à l'accouplement
Δt : Temperaturerhöhung	temperature rise	élévation de température
Δp : Druckerhöhung	pressure difference	pression différentielle
π_i : Eingebautes Druckverhältnis	built-in compression ratio	rapport de compression interne

Leistungsdiagramm - **Überdruck** - für Schraubenverdichterstufe
performance diagram - **overpressure** - for screw compressor stage
courbes de fonctionnement - **fonctionnement en pression** - pour étage de compresseur à vis

VM 100

$n_V / n_{HR} = i$	TRD/Evers 11/2017	V2-882 **4000661586**

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

		Operating Mode Δp=1840 mbar		☑ Idle Mode $p1 = p2$=1063 mbar (a)	
Main rotor speed	n_{HR}	**6994**	1/min	**6994**	1/min
Motor Speed	n_{Mot}	**2988**	1/min	**2988**	1/min
Power consumption at coupling	P_K	**356**	kW	**40**	kW
Torque at Motor Shaft	M_L	**1138**	Nm	**128**	Nm
Moment of Inertia at Motor Shaft	$J_{red} = mr^2$	**9,99**	kgm²		
		Operating Mode		Idle Mode	

The nominal rating of the driving machine must be selected at least 10% higher than the power of the compressor shaft.

Application Example. All information is subject to change.

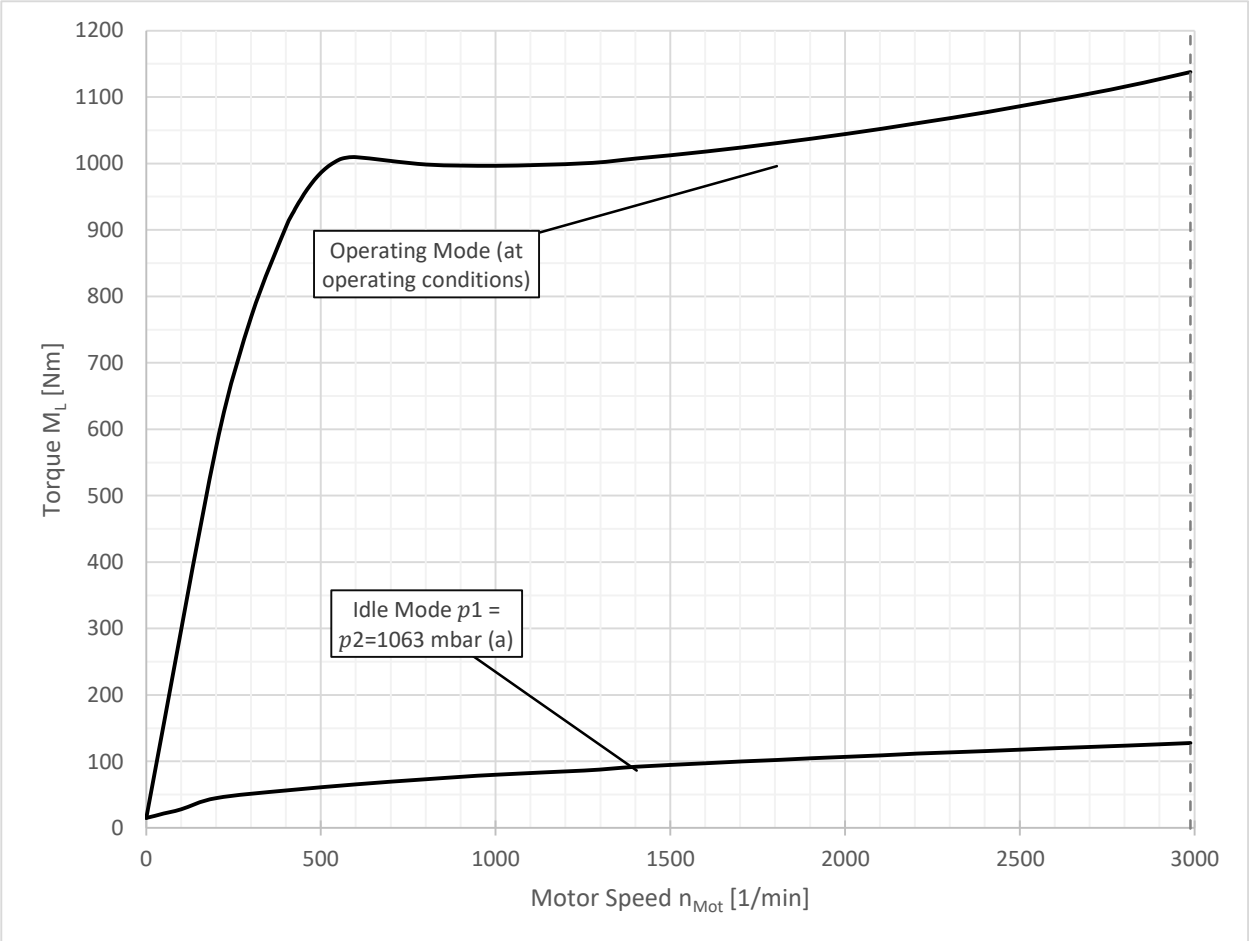
AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]



Startup Curve Screw Compressor VM 100

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

Application Example. All information is subject to change.

300 KT polyethylene plant project (ASPC)

DATE: 15-5-2025	DOC NO.: 23383-11B COMPRESSOR DATA SHEET	REV. 01	PAGE: 3 of 6

1	VENDOR (COMPRESSOR) :	Airpack Netherlands B.V.		REFERENCE :	23383-COM						
2	TYPE / MODEL :	Aerzen VML95		SERIAL NO. :	T-2025-00806/00807						
3	SERVICE :	Air compressor		OPERATION :	Continuous						
4	QUANTITY :	2 (1+1)									
5	INLET CONDITIONS			PACKAGE SCOPE OF SUPPLY							
6	GAS HANDLED :	Air		COMPRESSOR TYPE :	Oil free screw						
7	INLET CONDITIONS			DRIVER TYPE :	MV motor						
8	PRESSURE	bar(g)	0	COUPLING / GUARD :	Flexible / Non-sparking						
9	TEMPERATURE	°C	5-48	RCU AND SAFETY SWITCHES FOR MOTORS:	N/A						
10	REL. HUMIDITY	%	65-100	INTAKE FILTER / SILENCER:	Included						
11	OPERATING DENSITY	kg/m3	1,1	INTERCOOLING:	N/A						
12	MOLECULAR MASS	g/mol	28,97	AFTERCOOLER:	N/A						
13	Cp/Cv		1,4	LUBE-OIL COOLER:	Air-cooled						
14	Z		1	LUBE-OIL FILTER:	Included						
	VISCOSITY	PaS	1.97*10^-5								
16	INLET FILTER DIFF. PRESS.	Mbar	10	AUTO CONDENSATE TRAP:	N/A						
17	DISCHARGE CONDITIONS			AIR DRYER:	N/A						
18	PRESSURE	bar(g)	1,46	NITROGEN GENERATOR:	N/A						
19	FLOW RATE	Nm³/h	4247	BLOW-OFF SILENCER:	N/A						
20	TEMPERATURE	°C	167	CONTROL PANEL:	LPS and Junction box						
21	CONNECTION		ANSI 10" 150# RF	VIBRATION MONITOR:	N/A						
22	COMP. PERFORMANCE			INTERCONNECTING PIPEWORK & VALVES :	N/A						
23	SPEED	rpm	6253	ACOUSTIC ENCLOSURE:	Included						
24	ABSORBED POWER	kW	195	FOUNDATION BOLTS:	Included						
25	TYPE		Oil free screw	RECEIVER VESSELS:	N/A						
26	DESIGN TEMP/PRESS	°C/bar(g)	-10-230 / 3.2	LIGHTING:	N/A						
27	COMPRESSION RATIO		2,44	BASEPLATE	Included						
28	VOL. EFFICIENCY	%	TBD	FIRST OIL FILLING	Included						
	NOISE @ 1M	dBA	78								
29	DRIVER PERFORMANCE			UTILITY SUPPLIES							
30	OPERATING SPEED	rpm	2980	ELECTRICAL SUPPLY :							
31	RATING	kW	250	V	6000	PH	3	Hz	50		
32	MANUFACTURER		WEG	V	400	PH	3	Hz	50		
33	NO. OF POLES		2	V	230	PH	1	Hz	50		
34	DRIVE		DIRECT	COOLING MEDIUM :			AIR				
35			NOTE 1	TEMPERATURE:			AMBIENT				
36				PRESSURE:			AMBIENT				
37	SITE CONDITIONS			WEIGHTS AND DIMENSIONS							
38	ELEVATION	m	<1000	COMPRESSOR	kg	2568					
39	AMB. TEMPERATURE	°C	5-48	DRIVER	kg	2141					
40	AMB. PRESSURE	bar(g)	0	MISCELLANEOUS	kg	TBD					
41	REL. HUMIDITY	%	65-100	TOTAL	kg	TBD					
42	AREA CLASSIFICATION		Safe area								
43	NOISE LIMITATION	dBA	85	SIZE	mm	L X W X H	TBD				
44											
45											
46				BEARING HOUSING							
47	CASING			TYPE	ANTI-FRICTION						
48	MATERIAL		EN-GJL-250	BALL / ROLLER	ROLLER						
49	COOLING		AIR-COOLED								
50	DRIVE DIRECTION		CW	LUBRICATION							
51				LUBE SYSTEM :			FORCED, GEAR PUMP				
52				LUBE OIL PUMP DRIVE :	kW	DRIVEN BY GEARBOX					
53	ROTORS			SYSTEM OIL CAPACITY	L	TBD					
54	NO. OF LOBES MALE		3	LUBE OIL COOLER		AIR-COOLED					
55	NO. OF LOBES FEMALE		4	LUBE OIL FILTER		INCLUDED					
56	MATERIAL		C45N	THERMOSTATIC VALVE		YES					
57											
58	TIMING GEARS			STANDARDS AND SPECIFICATIONS							
59	MATERIAL		16 Mn Cr5	Compressor: Mfr. Std.							
60	TYPE		HELICAL, TEETH HARDENED								
61	SEALING			INSTRUMENTATION							
62	SHAFT SEALING TYPE		LABYRINTH	FUNCTION				TYPE(S)			
63	CONVEYING CHAMBER SEAL TYPE		PISTON RING LABYRINTH	COMPRESSOR INLET PRESSURE				GAUGE & TRANSMITTER			
65	SKID / COMPRESSOR CONNECTIONS			COMPRESSOR DISCHARGE TEMPERATURE				TRANSMITTER			
66	NOZZLE	SIZE	RATING	FACING	POSITION	COMPRESSOR DISCHARGE PRESSURE				GAUGE & TRANSMITTER	
67						COMPRESSOR OIL TEMPERATURE				TRANSMITTER	
68	AIR DISCHARGE	10"	150#	RF	TOP	COMPRESSOR OIL PRESSURE				GAUGE & TRANSMITTER	
69						COMPRESSOR INLET FILTER DIFF.PRESSURE				TRANSMITTER	
70						COMPRESSOR OIL LEVEL				SIGHT GLASS	
70						MAIN MOTOR TEMPERATURE (BEARINGS AND WINDINGS)				RTD	

71 NOTES : 1: FOR MORE INFORMATION ABOUT THE DRIVER REFER TO 3944-VD-0171-DYP-RE-400-LST-0004

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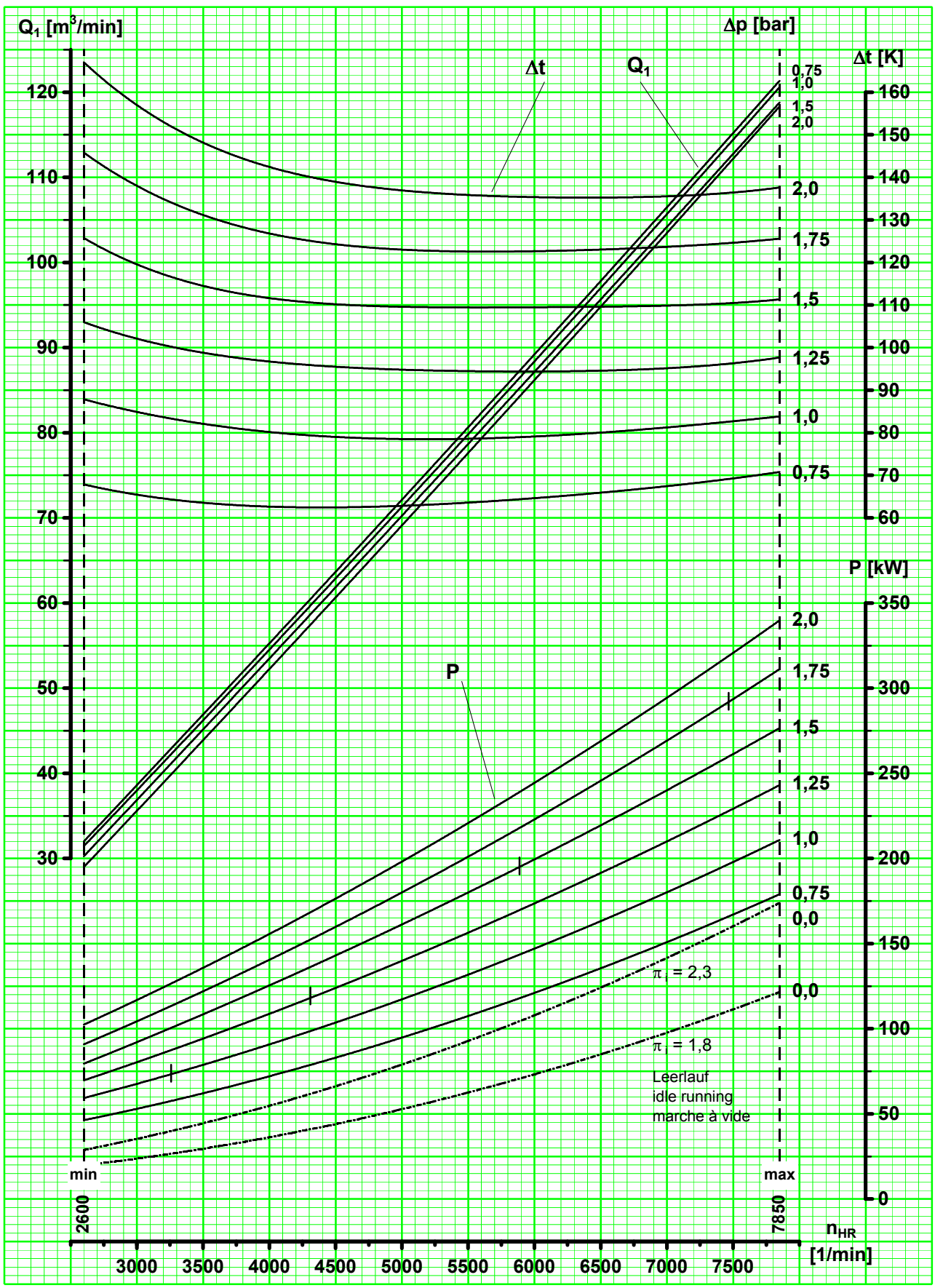
Reherweg 28 - D-31855 Aerzen - Telefon (0 51 54) 810 - Telefax (0 51 54) 8 11 91 - E-mail: info@aerzener.de - Webseite: http://www.aerzener.com



Q_1 : Ansaugvolumenstrom (Luft) bei p_1 = 1,0 bar und t_1 = 20°C	intake volume flow (air) at p_1 = 1.0 bar and t_1 = 20°C	débit aspiré (air) pour p_1 = 1,0 bar et t_1 = 20°C
n_{HR} : Hauptrotordrehzahl	main rotor speed	vitesse du rotor principal
n_V : Verdichterwellendrehzahl	compressor shaft speed	vitesse de l'arbre du compresseur
P : Leistungsbedarf an der Kupplung	power required at the coupling	puissance absorbée à l'accouplement
Δt : Temperaturerhöhung	temperature rise	élévation de température
Δp : Druckerhöhung	pressure difference	pression différentielle
π_i : Eingebautes Druckverhältnis	built-in compression ratio	rapport de compression interne

Leistungsdiagramm - **Überdruck** - für Schraubenverdichterstufe
performance diagram - **overpressure** - for screw compressor stage
courbes de fonctionnement - **fonctionnement en pression** - pour étage de compresseur à vis

VML 95

$n_V / n_{HR} = i$	10/2007	**V2 - 880 - a**

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EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

		Operating Mode Δp=1460 mbar		☑ Idle Mode $p1 = p2$=1013 mbar (a)	
Main rotor speed	n_{HR}	**6253**	1/min	**6253**	1/min
Motor Speed	n_{Mot}	**2980**	1/min	**2980**	1/min
Power consumption at coupling	P_K	**195**	kW	**40**	kW
Torque at Motor Shaft	M_L	**625**	Nm	**128**	Nm
Moment of Inertia at Motor Shaft	$J_{red} = mr^2$	**6,33**	kgm²		
		Operating Mode		Idle Mode	

The nominal rating of the driving machine must be selected at least 10% higher than the power of the compressor shaft.

Application Example. All information is subject to change.

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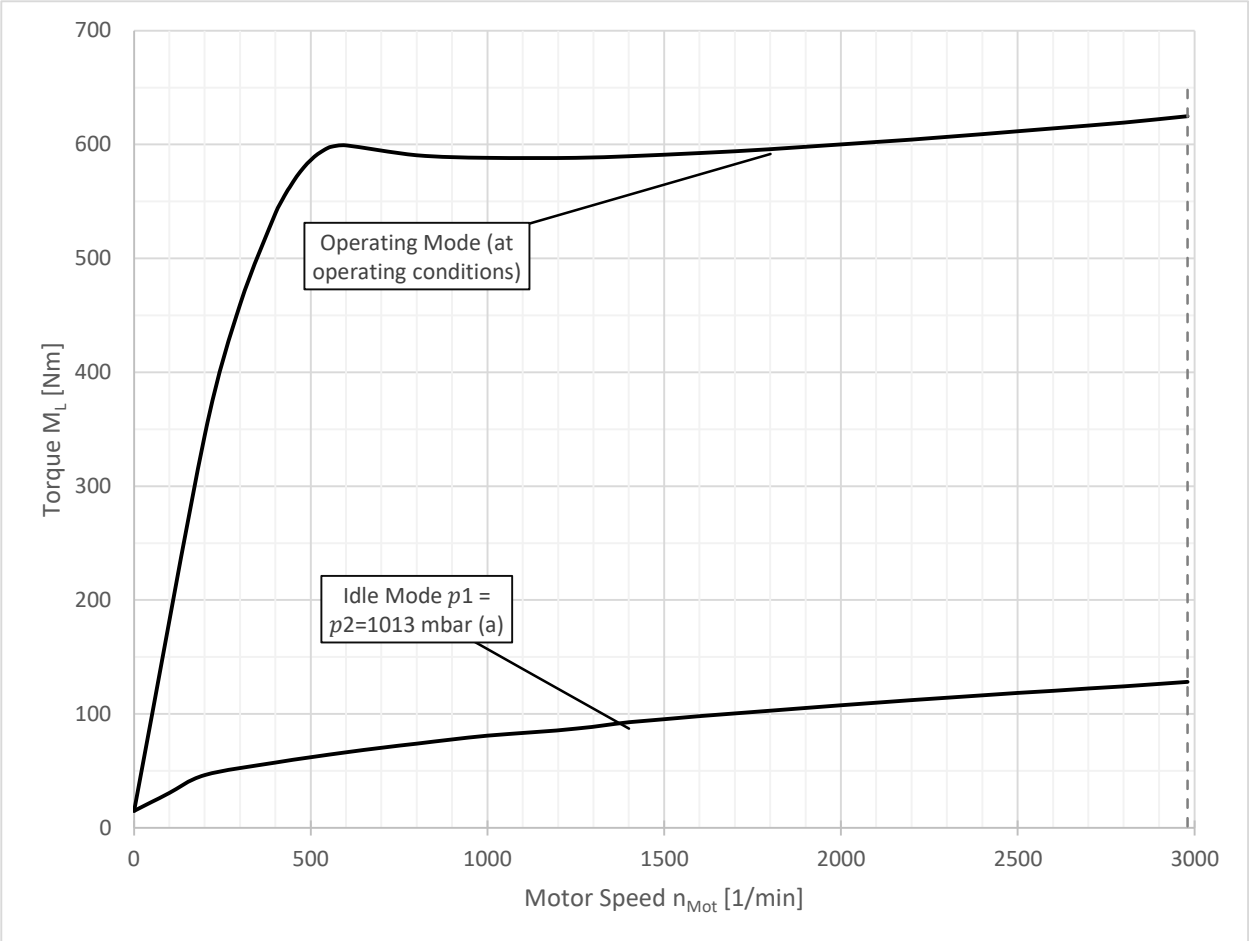
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]



Startup Curve Screw Compressor VML 95

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EXPECT PERFORMANCE

Startup Curve

Project
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Annotations

Client	Order Number
	[redacted]

Application Example. All information is subject to change.

300 KT polyethylene plant project (ASPC)

DATE: 15-5-2025	DOC NO.: 23383-11B COMPRESSOR DATA SHEET	REV. 01	PAGE: 4 of 6

1	VENDOR (COMPRESSOR) :	Airpack Netherlands B.V.		REFERENCE :	23383-COM						
2	TYPE / MODEL :	Aerzen GM100S		SERIAL NO. :	T-2025-00808/00809						
3	SERVICE :	Roots Blower		OPERATION :	Continuous						
4	QUANTITY :	2 (1+1)									
5	**INLET CONDITIONS**			**PACKAGE SCOPE OF SUPPLY**							
6	GAS HANDLED :	Air		COMPRESSOR TYPE :	Positive Displacement						
7	**INLET CONDITIONS**			DRIVER TYPE :	MV motor						
8	PRESSURE	bar(g)	0	COUPLING / GUARD :	V-Belt						
9	TEMPERATURE	°C	5-48	RCU AND SAFETY SWITCHES FOR MOTORS:	N/A						
10	REL. HUMIDITY	%	65-100	INTAKE FILTER / SILENCER:	Included						
11	OPERATING DENSITY	kg/m3	1,1	INTERCOOLING:	N/A						
12	MOLECULAR MASS	g/mol	28,97	AFTERCOOLER:	N/A						
13	Cp/Cv		1,4	LUBE-OIL COOLER:	Air-cooled						
14	Z		1	LUBE-OIL FILTER:	Included						
	VISCOSITY	PaS	1.97*10^-5								
16	INLET FILTER DIFF. PRESS.	Mbar	10	AUTO CONDENSATE TRAP:	N/A						
17	**DISCHARGE CONDITIONS**			AIR DRYER:	N/A						
18	PRESSURE	bar(g)	0,97	NITROGEN GENERATOR:	N/A						
19	FLOW RATE	Nm³/h	4266	BLOW-OFF SILENCER:	N/A						
20	TEMPERATURE	°C	154	CONTROL PANEL:	LPS and Junction box						
21	CONNECTION		ANSI 10" 150# RF	VIBRATION MONITOR:	N/A						
22	**COMP. PERFORMANCE**			INTERCONNECTING PIPEWORK & VALVES :	N/A						
23	SPEED	rpm	2244	ACOUSTIC ENCLOSURE:	Included						
24	ABSORBED POWER	kW	193	FOUNDATION BOLTS:	Included						
25	TYPE		Positive Displacement	RECEIVER VESSELS:	N/A						
26	DESIGN TEMP/PRESS	°C/bar(g)	-10-155 / 2.1	LIGHTING:	N/A						
27	COMPRESSION RATIO		1,95	BASEPLATE	Included						
28	VOL. EFFICIENCY	%	TBD	FIRST OIL FILLING	Included						
	NOISE @ 1M	dBA	81								
29	**DRIVER PERFORMANCE**			**UTILITY SUPPLIES**							
30	OPERATING SPEED	rpm	1488	ELECTRICAL SUPPLY :							
31	RATING	kW	250	V	6000	PH	3	Hz	50		
32	MANUFACTURER		WEG	V	400	PH	3	Hz	50		
33	NO. OF POLES		4	V	230	PH	1	Hz	50		
34	DRIVE		V-BELT	COOLING MEDIUM :			AIR				
35			NOTE 1	TEMPERATURE:			AMBIENT				
36				PRESSURE:			AMBIENT				
37	**SITE CONDITIONS**			**WEIGHTS AND DIMENSIONS**							
38	ELEVATION	m	<1000	BLOWER		kg	1408				
39	AMB. TEMPERATURE	°C	5-48	DRIVER		kg	2235				
40	AMB. PRESSURE	bar(g)	0	MISCELLANEOUS		kg	TBD				
41	REL. HUMIDITY	%	65-100	TOTAL		kg	TBD				
42	AREA CLASSIFICATION		Safe area								
43	NOISE LIMITATION	dBA	85	SIZE	mm	L X W X H	TBD				
44											
45											
46				**BEARING HOUSING**							
47	**CASING**			TYPE	ANTI-FRICTION						
48	MATERIAL		EN-GJL-200	BALL / ROLLER	ROLLER						
49	COOLING		AIR-COOLED								
50	DRIVE DIRECTION		CW	**LUBRICATION**							
51				LUBE SYSTEM :			OIL SPLASH LUBRICATION				
52				LUBE OIL PUMP DRIVE :	kW		N/A				
53	**ROTORS/SHAFT**			SYSTEM OIL CAPACITY	L		TBD				
54	NO. OF LOBES MALE		3	LUBE OIL COOLER			AIR-COOLED				
55	NO. OF LOBES FEMALE		3	LUBE OIL FILTER			INCLUDED				
56	MATERIAL		EN-GJS-500-7	THERMOSTATIC VALVE			N/A				
57											
58	**TIMING GEARS**			**STANDARDS AND SPECIFICATIONS**							
59	MATERIAL		16 Mn Cr5	Blower: Mfr. Std.							
60	TYPE		HELICAL, TEETH HARDENED								
61	**SEALING**			**INSTRUMENTATION**							
62	SHAFT SEALING TYPE		RADIAL SEAL RING	FUNCTION				TYPE(S)			
63	CONVEYING CHAMBER SEAL TYPE		PISTON RING LABYRINTH x4	BLOWER INLET PRESSURE				GAUGE & TRANSMITTER			
65	**SKID / COMPRESSOR CONNECTIONS**			BLOWER INLET FILTER DIFF. PRESSURE				TRANSMITTER			
66	NOZZLE	SIZE	RATING	FACING	POSITION	BLOWER DISCHARGE TEMPERATURE				TRANSMITTER	
67						BLOWER DISCHARGE PRESSURE				GAUGE & TRANSMITTER	
68	AIR DISCHARGE	10"	150#	RF	SIDE	MAIN MOTOR TEMPERATURE (BEARINGS AND WINDINGS)				RTD	
69											
70											
70											

71 **NOTES : 1: FOR MORE INFORMATION ABOUT THE DRIVER REFER TO 3944-VD-0171-DYP-RE-400-LST-0004**

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Aerzener Maschinenfabrik GmbH
Reherweg 28 - D-31855 Aerzen - Telefon (0 51 54) 81 0 - info@aerzener.de - www.aerzener.com

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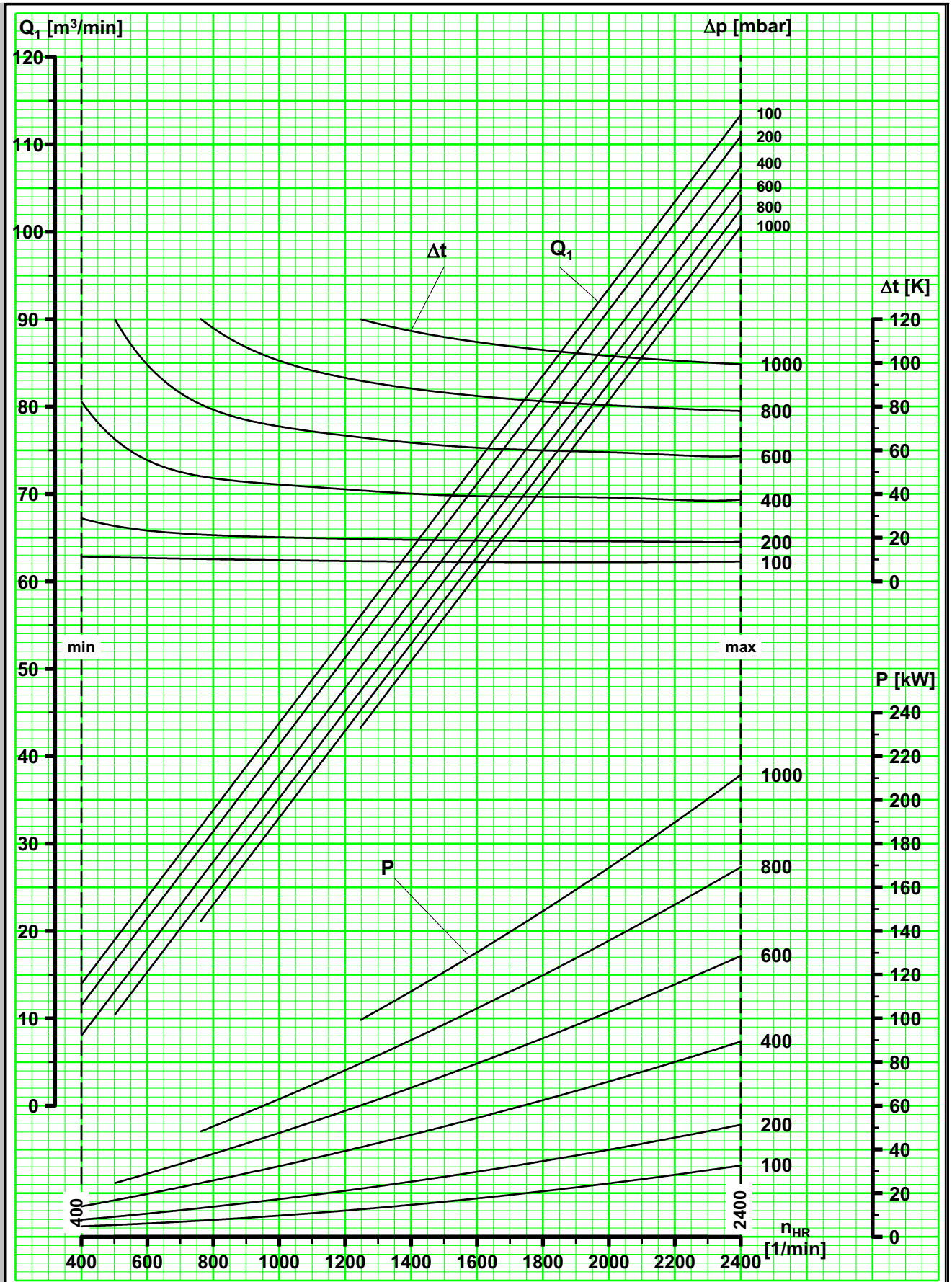


Q_1 : Ansaugvolumenstrom (Luft) bei p_1 = 1,0 bar und t_1 = 20°C	intake volume flow (air) at p_1 = 1.0 bar and t_1 = 20°C	débit aspiré (air) pour p_1 = 1,0 bar et t_1 = 20°C
n_{HR} : Hauptrotordrehzahl	main rotor speed	vitesse du rotor principal
n_V : Antriebswellendrehzahl	drive shaft speed	vitesse de l'arbre d'entraînement
P : Leistungsbedarf an der Kupplung	power required at the coupling	puissance absorbée à l'accouplement
Δt : Temperaturerhöhung	temperature rise	élévation de température
Δp : Druckerhöhung	pressure difference	pression différentielle

Leistungsdiagramm - Überdruck - für Drehkolbengebläsestufe
performance diagram - overpressure - for stage of rotary piston blower
courbes de fonctionnement - fonctionnement en pression - pour étage de surpresseur à pistons rotatifs

GM 100 S

nV / nHR = 1	03/2020 TRD / Evers	4000556899

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

		Operating Mode Δp=970 mbar		☑ Idle Mode $p1 = p2$=1013 mbar (a)	
Main rotor speed	n_{HR}	**2244**	1/min	**2244**	1/min
Motor Speed	n_{Mot}	**1488**	1/min	**1488**	1/min
Power consumption at coupling	P_K	**193**	kW	**40**	kW
Torque at Motor Shaft	M_L	**1239**	Nm	**257**	Nm
Moment of Inertia at Motor Shaft	$J_{red} = mr^2$	**6,82**	kgm²		
		Operating Mode		Idle Mode	

The nominal rating of the driving machine must be selected at least 10% higher than the power of the compressor shaft.

Application Example. All information is subject to change.

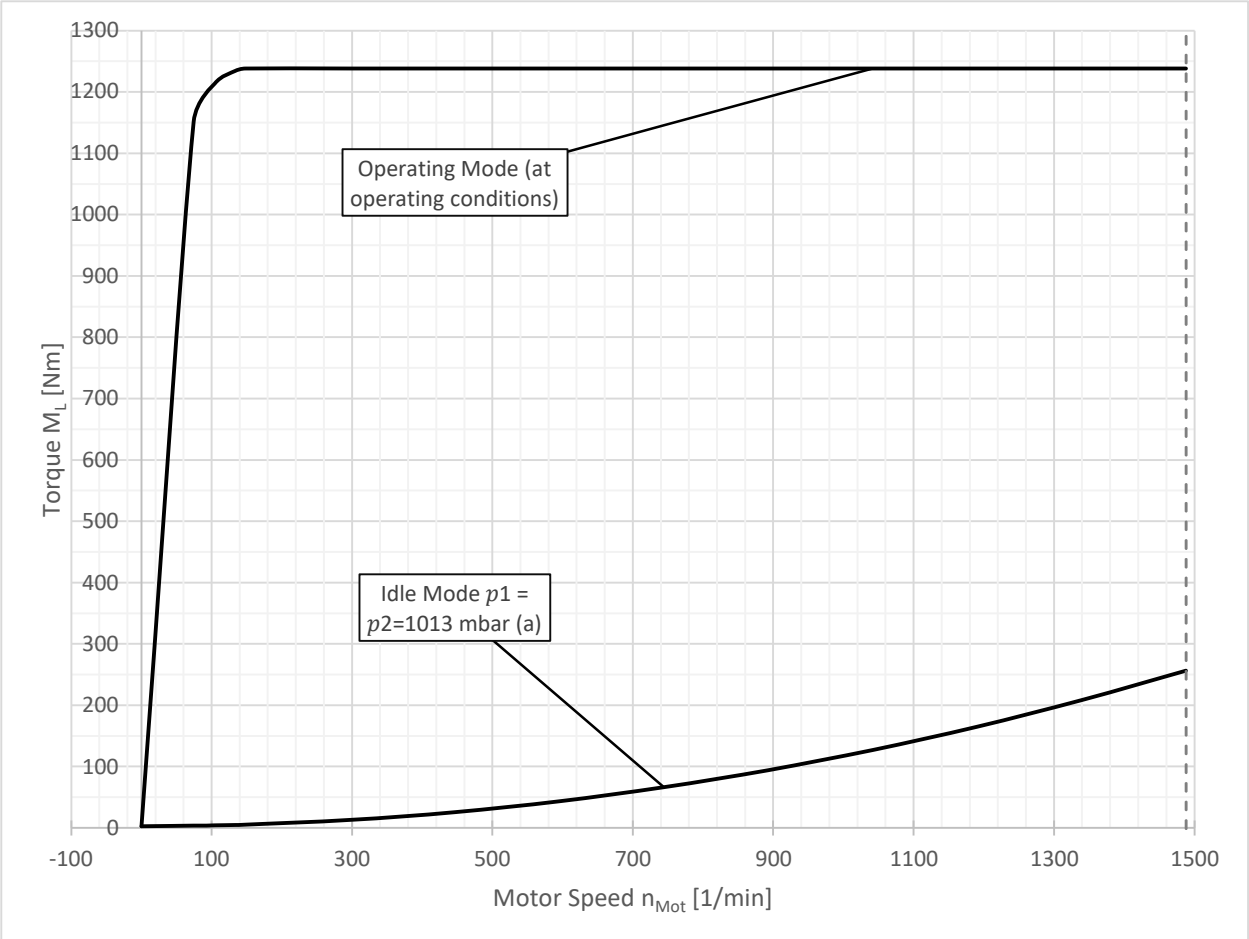
AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]



Startup Curve Blower GM 100S

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

Application Example. All information is subject to change.

300 KT polyethylene plant project (ASPC)

DATE: 15-5-2025	DOC NO.: 23383-11B COMPRESSOR DATA SHEET	REV. 01	PAGE: 5 of 6

1	VENDOR (COMPRESSOR) :	Airpack Netherlands B.V.		REFERENCE :	23383-COM						
2	TYPE / MODEL :	Aerzen VM140		SERIAL NO. :	T-2025-00810/00811						
3	SERVICE :	Air compressor		OPERATION :	Continuous						
4	QUANTITY :	2 (1+1)									
5	**INLET CONDITIONS**			**PACKAGE SCOPE OF SUPPLY**							
6	GAS HANDLED :	Air		COMPRESSOR TYPE :	Oil free screw						
7	**INLET CONDITIONS**			DRIVER TYPE :	MV motor						
8	PRESSURE	bar(g)	0	COUPLING / GUARD :	Flexible / Non-sparking						
9	TEMPERATURE	°C	5-48	RCU AND SAFETY SWITCHES FOR MOTORS:	N/A						
10	REL. HUMIDITY	%	65-100	INTAKE FILTER / SILENCER:	Included						
11	OPERATING DENSITY	kg/m3	1,1	INTERCOOLING:	N/A						
12	MOLECULAR MASS	g/mol	28,97	AFTERCOOLER:	N/A						
13	Cp/Cv		1,4	LUBE-OIL COOLER:	Air-cooled						
14	Z		1	LUBE-OIL FILTER:	Included						
	VISCOSITY	PaS	1.97*10^-5								
16	INLET FILTER DIFF. PRESS.	Mbar	10	AUTO CONDENSATE TRAP:	N/A						
17	**DISCHARGE CONDITIONS**			AIR DRYER:	N/A						
18	PRESSURE	bar(g)	2,2	NITROGEN GENERATOR:	N/A						
19	FLOW RATE	Nm³/h	7339	BLOW-OFF SILENCER:	N/A						
20	TEMPERATURE	°C	205	CONTROL PANEL:	LPS and Junction box						
21	CONNECTION		ANSI 10" 150# RF	VIBRATION MONITOR:	N/A						
22	**COMP. PERFORMANCE**			INTERCONNECTING PIPEWORK & VALVES :	N/A						
23	SPEED	rpm	5860	ACOUSTIC ENCLOSURE:	Included						
24	ABSORBED POWER	kW	479	FOUNDATION BOLTS:	Included						
25	TYPE		Oil free screw	RECEIVER VESSELS:	N/A						
26	DESIGN TEMP/PRESS	°C/bar(g)	-10-280 / 5	LIGHTING:	N/A						
27	COMPRESSION RATIO		3,17	BASEPLATE	Included						
28	VOL. EFFICIENCY	%	TBD	FIRST OIL FILLING	Included						
	NOISE @ 1M	dBA	85								
29	**DRIVER PERFORMANCE**			**UTILITY SUPPLIES**							
30	OPERATING SPEED	rpm	2985	ELECTRICAL SUPPLY :							
31	RATING	kW	590	V	6000	PH	3	Hz	50		
32	MANUFACTURER		WEG	V	400	PH	3	Hz	50		
33	NO. OF POLES		2	V	230	PH	1	Hz	50		
34	DRIVE		DIRECT	COOLING MEDIUM :			AIR				
35			NOTE 1	TEMPERATURE:			AMBIENT				
36				PRESSURE:			AMBIENT				
37	**SITE CONDITIONS**			**WEIGHTS AND DIMENSIONS**							
38	ELEVATION	m	<1000	COMPRESSOR		kg	5298				
39	AMB. TEMPERATURE	°C	5-48	DRIVER		kg	4002				
40	AMB. PRESSURE	bar(g)	0	MISCELLANEOUS		kg	TBD				
41	REL. HUMIDITY	%	65-100	TOTAL		kg	TBD				
42	AREA CLASSIFICATION		Safe area								
43	NOISE LIMITATION	dBA	85	SIZE	mm	L X W X H	TBD				
44											
45											
46				**BEARING HOUSING**							
47	**CASING**			TYPE	ANTI-FRICTION						
48	MATERIAL		EN-GJL-250	BALL / ROLLER	ROLLER						
49	COOLING		AIR-COOLED								
50	DRIVE DIRECTION		CW	**LUBRICATION**							
51				LUBE SYSTEM :			FORCED, GEAR PUMP				
52				LUBE OIL PUMP DRIVE :		kW	DRIVEN BY GEARBOX				
53	**ROTORS**			SYSTEM OIL CAPACITY		L	TBD				
54	NO. OF LOBES MALE		4	LUBE OIL COOLER			AIR-COOLED				
55	NO. OF LOBES FEMALE		6	LUBE OIL FILTER			INCLUDED				
56	MATERIAL		C45N	THERMOSTATIC VALVE			YES				
57											
58	**TIMING GEARS**			**STANDARDS AND SPECIFICATIONS**							
59	MATERIAL		16 Mn Cr5	Compressor: Mfr. Std.							
60	TYPE		HELICAL, TEETH HARDENED								
61	**SEALING**			**INSTRUMENTATION**							
62	SHAFT SEALING TYPE		LABYRINTH	FUNCTION				TYPE(S)			
63	CONVEYING CHAMBER SEAL TYPE		PISTON RING LABYRINTH	COMPRESSOR INLET PRESSURE				GAUGE & TRANSMITTER			
65	**SKID / COMPRESSOR CONNECTIONS**			COMPRESSOR DISCHARGE TEMPERATURE				TRANSMITTER			
66	NOZZLE	SIZE	RATING	FACING	POSITION	COMPRESSOR DISCHARGE PRESSURE				GAUGE & TRANSMITTER	
67						COMPRESSOR OIL TEMPERATURE				TRANSMITTER	
68	AIR DISCHARGE	10"	150#	RF	TOP	COMPRESSOR OIL PRESSURE				GAUGE & TRANSMITTER	
69						COMPRESSOR INLET FILTER DIFF.PRESSURE				TRANSMITTER	
70						COMPRESSOR OIL LEVEL				SIGHT GLASS	
70						MAIN MOTOR TEMPERATURE (BEARINGS AND WINDINGS)				RTD	

71 **NOTES : 1: FOR MORE INFORMATION ABOUT THE DRIVER REFER TO 3944-VD-0171-DYP-RE-400-LST-0004**

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Aerzener Maschinenfabrik GmbH
Reherweg 28 - D-31855 Aerzen - Telefon (0 51 54) 81 0 - info@aerzener.de - www.aerzener.com

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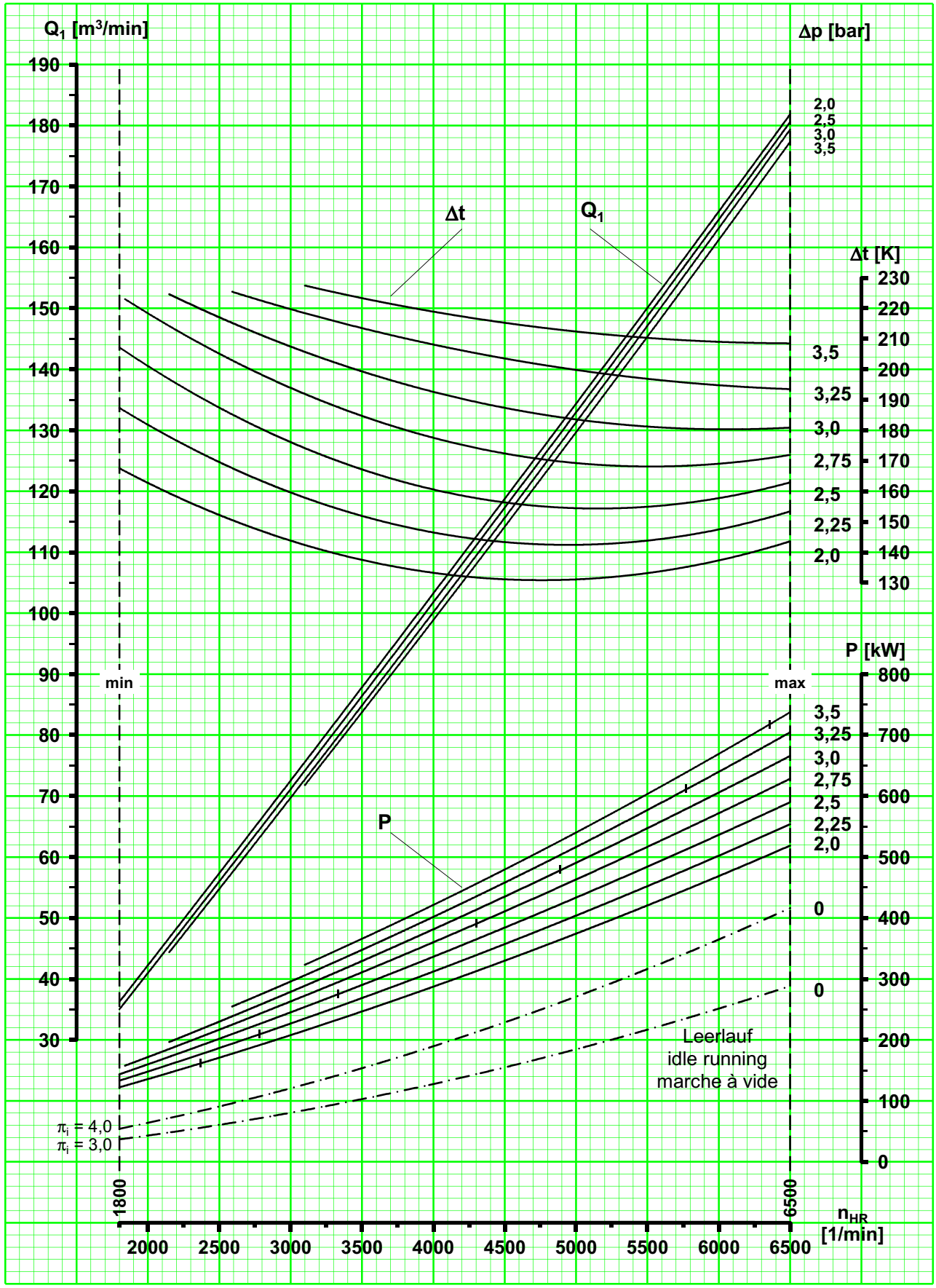


Q_1 : Ansaugvolumenstrom (Luft) bei p_1 = 1,0 bar und t_1 = 20°C	intake volume flow (air) at p_1 = 1.0 bar and t_1 = 20°C	débit aspiré (air) pour p_1 = 1,0 bar et t_1 = 20°C
n_{HR} : Hauptrotordrehzahl	main rotor speed	vitesse du rotor principal
n_V : Antriebswellendrehzahl	drive shaft speed	vitesse de l'arbre d'entraînement
P : Leistungsbedarf an der Kupplung	power required at the coupling	puissance absorbée à l'accouplement
Δt : Temperaturerhöhung	temperature rise	élévation de température
Δp : Druckerhöhung	pressure difference	pression différentielle
π_i : Eingebautes Druckverhältnis	built-in compression ratio	rapport de compression interne

Leistungsdiagramm - **Überdruck** - für Schraubenverdichterstufe
performance diagram - **overpressure** - for screw compressor stage
courbes de fonctionnement - **fonctionnement en pression** - pour étage de compresseur à vis

VM 140

$n_V / n_{HR} = i$	06/2015	**V2 - 886** **SAP 4000123754**

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

		Operating Mode Δp=2200 mbar		☑ Idle Mode $p1 = p2$=1013 mbar (a)	
Main rotor speed	n_{HR}	**5860**	1/min	**5860**	1/min
Motor Speed	n_{Mot}	**2985**	1/min	**2985**	1/min
Power consumption at coupling	P_K	**479**	kW	**40**	kW
Torque at Motor Shaft	M_L	**1532**	Nm	**128**	Nm
Moment of Inertia at Motor Shaft	$J_{red} = mr^2$	**24,33**	kgm²		
		Operating Mode		Idle Mode	

The nominal rating of the driving machine must be selected at least 10% higher than the power of the compressor shaft.

Application Example. All information is subject to change.

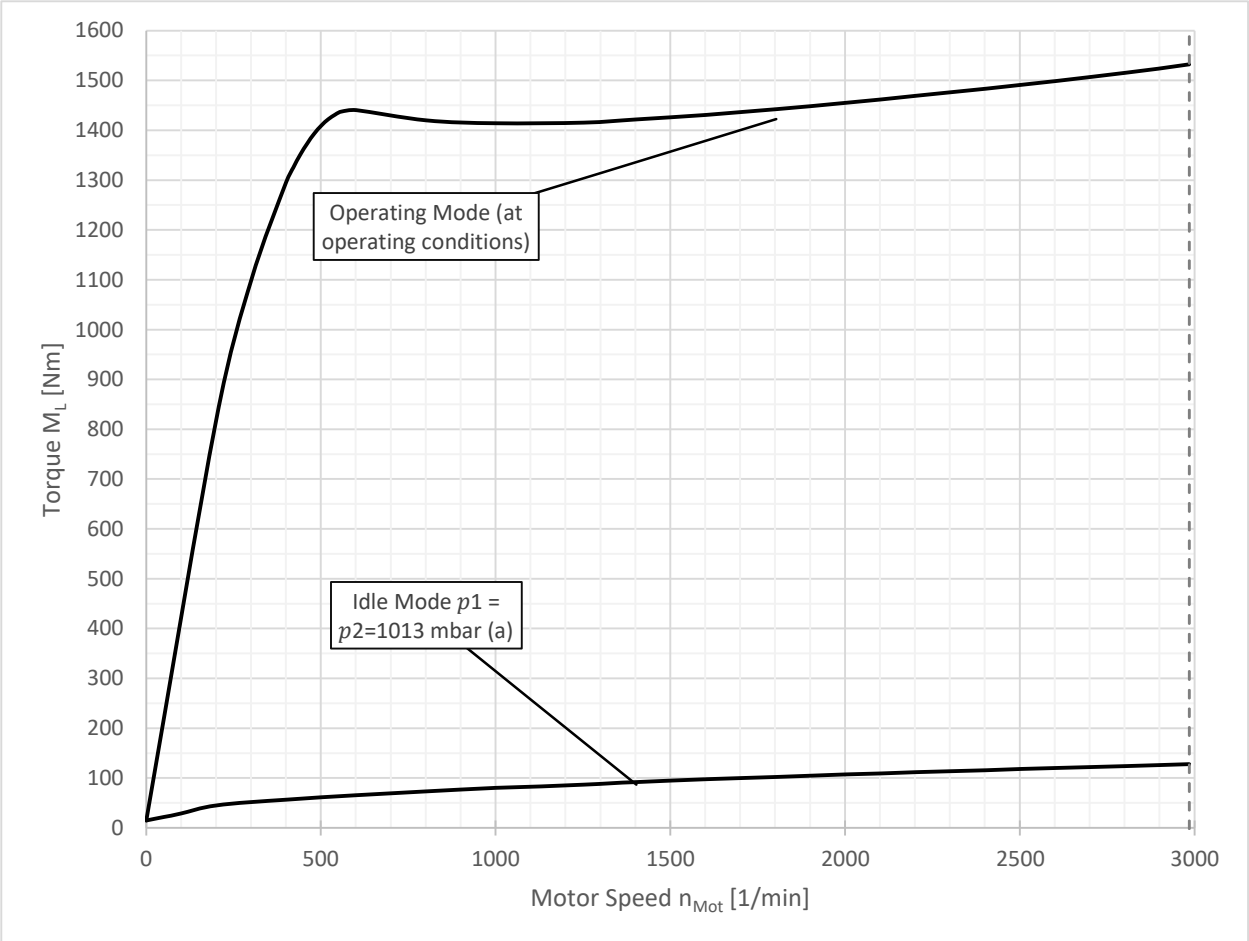
AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]



Startup Curve Screw Compressor VM 140

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

Application Example. All information is subject to change.

300 KT polyethylene plant project (ASPC)

DATE: 15-5-2025	DOC NO.: 23383-11B COMPRESSOR DATA SHEET	REV. 01	PAGE: 6 of 6

1	VENDOR (COMPRESSOR) :	Airpack Netherlands B.V.		REFERENCE :	23383-COM						
2	TYPE / MODEL :	Aerzen VML95		SERIAL NO. :	T-2025-00812/00813/00814						
3	SERVICE :	Air compressor		OPERATION :	Continuous						
4	QUANTITY :	3 (2+1)									
5	INLET CONDITIONS			PACKAGE SCOPE OF SUPPLY							
6	GAS HANDLED :	Air		COMPRESSOR TYPE :	Oil free screw						
7	INLET CONDITIONS			DRIVER TYPE :	MV motor						
8	PRESSURE	bar(g)	0	COUPLING / GUARD :	Flexible / Non-sparking						
9	TEMPERATURE	°C	5-48	RCU AND SAFETY SWITCHES FOR MOTORS:	N/A						
10	REL. HUMIDITY	%	65-100	INTAKE FILTER / SILENCER:	Included						
11	OPERATING DENSITY	kg/m3	1,1	INTERCOOLING:	N/A						
12	MOLECULAR MASS	g/mol	28,97	AFTERCOOLER:	N/A						
13	Cp/Cv		1,4	LUBE-OIL COOLER:	Air-cooled						
14	Z		1	LUBE-OIL FILTER:	Included						
	VISCOSITY	PaS	1.97*10^-5								
16	INLET FILTER DIFF. PRESS.	Mbar	10	AUTO CONDENSATE TRAP:	N/A						
17	DISCHARGE CONDITIONS			AIR DRYER:	N/A						
18	PRESSURE	bar(g)	1,41	NITROGEN GENERATOR:	N/A						
19	FLOW RATE	Nm³/h	4226	BLOW-OFF SILENCER:	N/A						
20	TEMPERATURE	°C	164	CONTROL PANEL:	LPS and Junction box						
21	CONNECTION		ANSI 10" 150# RF	VIBRATION MONITOR:	N/A						
22	COMP. PERFORMANCE			INTERCONNECTING PIPEWORK & VALVES :	N/A						
23	SPEED	rpm	6253	ACOUSTIC ENCLOSURE:	Included						
24	ABSORBED POWER	kW	189	FOUNDATION BOLTS:	Included						
25	TYPE		Oil free screw	RECEIVER VESSELS:	N/A						
26	DESIGN TEMP/PRESS	°C/bar(g)	-10-230 / 3.2	LIGHTING:	N/A						
27	COMPRESSION RATIO		2,39	BASEPLATE	Included						
28	VOL. EFFICIENCY	%	TBD	FIRST OIL FILLING	Included						
	NOISE @ 1M	dBA	78								
29	DRIVER PERFORMANCE			UTILITY SUPPLIES							
30	OPERATING SPEED	rpm	2980	ELECTRICAL SUPPLY :							
31	RATING	kW	250	V	6000	PH	3	Hz	50		
32	MANUFACTURER		WEG	V	400	PH	3	Hz	50		
33	NO. OF POLES		2	V	230	PH	1	Hz	50		
34	DRIVE		DIRECT	COOLING MEDIUM :			AIR				
35			NOTE 1	TEMPERATURE:			AMBIENT				
36				PRESSURE:			AMBIENT				
37	SITE CONDITIONS			WEIGHTS AND DIMENSIONS							
38	ELEVATION	m	<1000	COMPRESSOR		kg	2568				
39	AMB. TEMPERATURE	°C	5-48	DRIVER		kg	2141				
40	AMB. PRESSURE	bar(g)	0	MISCELLANEOUS		kg	TBD				
41	REL. HUMIDITY	%	65-100	TOTAL		kg	TBD				
42	AREA CLASSIFICATION		Safe area								
43	NOISE LIMITATION	dBA	85	SIZE	mm	L X W X H	TBD				
44											
45											
46				BEARING HOUSING							
47	CASING			TYPE	ANTI-FRICTION						
48	MATERIAL		EN-GJL-250	BALL / ROLLER	ROLLER						
49	COOLING		AIR-COOLED								
50	DRIVE DIRECTION		CW	LUBRICATION							
51				LUBE SYSTEM :			FORCED, GEAR PUMP				
52				LUBE OIL PUMP DRIVE :		kW	DRIVEN BY GEARBOX				
53	ROTORS			SYSTEM OIL CAPACITY		L	TBD				
54	NO. OF LOBES MALE		3	LUBE OIL COOLER			AIR-COOLED				
55	NO. OF LOBES FEMALE		4	LUBE OIL FILTER			INCLUDED				
56	MATERIAL		C45N	THERMOSTATIC VALVE			YES				
57											
58	TIMING GEARS			STANDARDS AND SPECIFICATIONS							
59	MATERIAL		16 Mn Cr5	Compressor: Mfr. Std.							
60	TYPE		HELICAL, TEETH HARDENED								
61	SEALING			INSTRUMENTATION							
62	SHAFT SEALING TYPE		LABYRINTH	FUNCTION				TYPE(S)			
63	CONVEYING CHAMBER SEAL TYPE		PISTON RING LABYRINTH	COMPRESSOR INLET PRESSURE				GAUGE & TRANSMITTER			
65	SKID / COMPRESSOR CONNECTIONS			COMPRESSOR DISCHARGE TEMPERATURE				TRANSMITTER			
66	NOZZLE	SIZE	RATING	FACING	POSITION	COMPRESSOR DISCHARGE PRESSURE				GAUGE & TRANSMITTER	
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68	AIR DISCHARGE	10"	150#	RF	TOP	COMPRESSOR OIL PRESSURE				GAUGE & TRANSMITTER	
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70						COMPRESSOR OIL LEVEL				SIGHT GLASS	
70						MAIN MOTOR TEMPERATURE (BEARINGS AND WINDINGS)				RTD	

71 NOTES : 1: FOR MORE INFORMATION ABOUT THE DRIVER REFER TO 3944-VD-0171-DYP-RE-400-LST-0004

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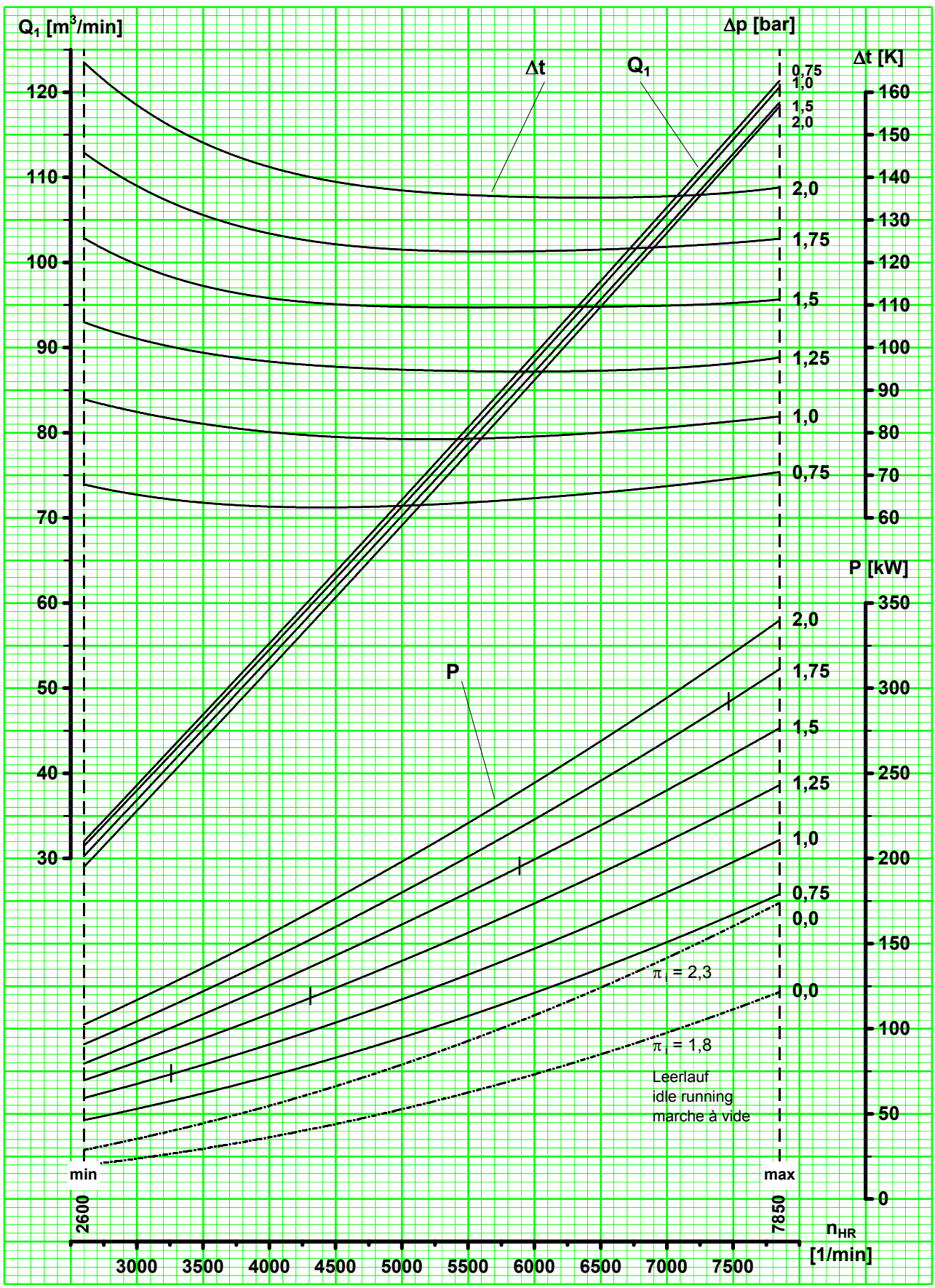
Aerzener Maschinenfabrik GmbH
Reherweg 28 - D-31855 Aerzen - Telefon (0 51 54) 810 - Telefax (0 51 54) 8 11 91 - E-mail: info@aerzener.de - Webseite: http://www.aerzener.com



Q_1 : Ansaugvolumenstrom (Luft) bei p_1 = 1,0 bar und t_1 = 20°C	intake volume flow (air) at p_1 = 1.0 bar and t_1 = 20°C	débit aspiré (air) pour p_1 = 1,0 bar et t_1 = 20°C
n_{HR} : Hauptrotordrehzahl	main rotor speed	vitesse du rotor principal
n_V : Verdichterwellendrehzahl	compressor shaft speed	vitesse de l'arbre du compresseur
P : Leistungsbedarf an der Kupplung	power required at the coupling	puissance absorbée à l'accouplement
Δt : Temperaturerhöhung	temperature rise	élévation de température
Δp : Druckerhöhung	pressure difference	pression différentielle
π_i : Eingebautes Druckverhältnis	built-in compression ratio	rapport de compression interne

Leistungsdiagramm - **Überdruck** - für Schraubenverdichterstufe
performance diagram - **overpressure** - for screw compressor stage
courbes de fonctionnement - **fonctionnement en pression** - pour étage de compresseur à vis

VML 95

$n_V / n_{HR} = i$	10/2007	**V2 - 880 - a**

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

		Operating Mode Δp=1410 mbar		☑ Idle Mode $p1 = p2$=1013 mbar (a)	
Main rotor speed	n_{HR}	**6253**	1/min	**6253**	1/min
Motor Speed	n_{Mot}	**2980**	1/min	**2980**	1/min
Power consumption at coupling	P_K	**189**	kW	**40**	kW
Torque at Motor Shaft	M_L	**606**	Nm	**128**	Nm
Moment of Inertia at Motor Shaft	$J_{red} = mr^2$	**6,33**	kgm²		
		Operating Mode		Idle Mode	

The nominal rating of the driving machine must be selected at least 10% higher than the power of the compressor shaft.

Application Example. All information is subject to change.

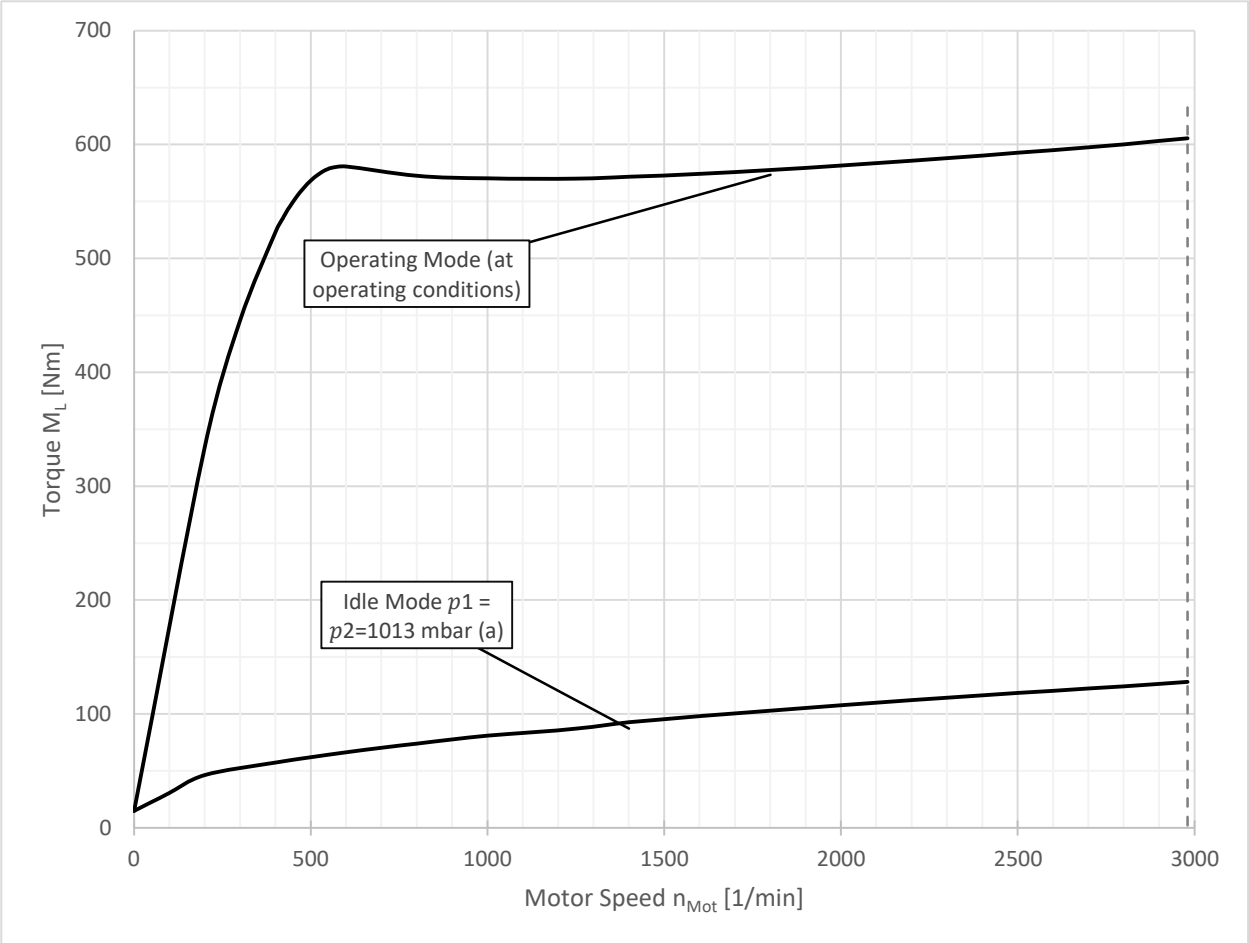
AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]



Startup Curve Screw Compressor VML 95

AERZEN
EXPECT PERFORMANCE

Startup Curve

Project
[redacted]

Annotations

Client	Order Number
	[redacted]

Application Example. All information is subject to change.