



**VACUUM SOLUTIONS**



**TYR ROTARY  
LOBE BLOWERS**

**Technical overview  
Generation C  
Vacuum**

# TYR WT 0100 – 0730 C

## Rotary Lobe Blowers

- ISO standard reference conditions ( $T_1=20^{\circ}\text{C}$ , altitude = 0m, dry air)
- Noise level according to ISO 2151
- Parameters and tolerances according to ISO 1217
- Units marked with blue color can be used only with cooling system
- Units with ④: if  $T_1 \geq 40^{\circ}\text{C}$  cooling system must be used
- Units with ③: if  $T_1 \geq 30^{\circ}\text{C}$  cooling system must be used
- Units with ④: if  $T_1 \geq 40^{\circ}\text{C}$  these units can not be used
- Units with ③: if  $T_1 \geq 30^{\circ}\text{C}$  these units can not be used

<b>dP</b>	Differential pressure (incl. losses)
<b>Q</b>	Inlet flow
<b>T<sub>2</sub></b>	Outlet air temperature
<b>P<sub>k</sub></b>	Power consumption
<b>P<sub>m</sub></b>	Nominal motor rating
<b>N<sub>g</sub></b>	Rotational speed of blower
<b>N<sub>m</sub></b>	Rotational speed of motor
<b>Motor frame</b>	Motor size with poles
<b>i</b>	Diameter of blower pulley / motor pulley
<b>X</b>	Quantity and type of v-belt
<b>f(stat) (Hz)</b>	Frequency of v-belt tension by laser tool
<b>Te(mm)/Fe(N)</b>	Values for tension of v-belt by „Belt Tension Tester“ Te: indentation depth Fe: test force
<b>Lp(A) (dB)</b>	Noise level without / with acoustic enclosure

dP (mbar)		WT 0100 D114 / DN100											
	Q (m³/h)	T <sub>2</sub> (°C)	Pk (kW)	Pm (kW)	Ng (rpm)	Nm (rpm)	Motor frame	i	X	f(stat) (Hz)	Te(mm)/Fe(N)	Lp(A) (dB)	
200	01	156	36	1,4	2,2	1632	1460	100-4	85/95	1/XPZ/1060	86	8 / 25	70/66
	02	211	37	1,77	2,2	2059	2920	90-2	95/67	1/XPZ/1024	74	9 / 25	72/66
	03	242	38	1,98	2,2	2300	2920	90-2	80/63	1/XPZ/1000	76	9 / 25	73/67
	04	280	40	2,23	3	2592	2910	100-2	80/71	1/XPZ/1000	84	8 / 25	74/67
	05	302	41	2,38	3	2765	2910	100-2	100/95	1/XPZ/1112	71	10 / 25	75/67
	06	341	42	2,64	3	3072	2910	100-2	90/95	1/XPZ/1112	69	10 / 25	77/67
	07	367	44	2,81	4	3274	2910	112-2	84/90	1/XPZ/1030	87	7 / 25	78/68
	08	386	45	2,94	4	3424	2910	112-2	85/100	1/XPA/1055	64	14 / 50	78/68
	09	412	46	3,12	4	3629	2910	112-2	85/106	1/XPA/1055	64	14 / 50	79/68
	10	439	47	3,3	4	3834	2910	112-2	85/112	1/XPA/1055	63	14 / 50	80/68
	11	494	48	3,67	4	4268	2910	112-2	90/132	1/XPA/1132	58	15 / 50	82/69
	12	527	47	3,89	5,5	4519	2930	132-2	85/132	1/XPA/1132	58	15 / 50	83/69
	13	538	47	3,96	5,5	4610	2930	132-2	75/118	2/XPZ/1120	59	11 / 25	84/69
300	14	151	46	2,12	3	1720	2910	100-2	90/106	2/XPA/1120	66	13 / 50	71/66
	15	210	48	2,69	3	2183	2910	100-2	100/75	1/XPZ/1060	76	9 / 25	73/67
	16	247	49	3,04	4	2468	2910	112-2	112/95	1/XPZ/1087	81	8 / 25	75/67
	17	266	49	3,23	4	2619	2910	112-2	100/90	1/XPZ/1077	81	8 / 25	75/67
	18	304	50	3,59	4	2910	2910	112-2	85/85	1/XPZ/1037	83	8 / 25	77/68
	19	328	52	3,83	5,5	3102	2930	132-2	80/90	2/XPZ/1060	67	10 / 25	78/68
	21	356	54	4,1	5,5	3321	2930	132-2	75/85	2/XPZ/1037	68	10 / 25	79/68
	22	424	56	4,74	5,5	3842	2930	132-2	90/118	1/XPZ/1137	81	8 / 25	81/69
	23	453	56	5,02	7,5	4071	2930	132-2	95/132	1/XPA/1157	74	11 / 50	82/69
	24	482	56	5,3	7,5	4297	2930	132-2	90/132	1/XPA/1157	73	12 / 50	83/69
	25	524	58	5,71	7,5	4626	2930	132-2	95/150	1/XPA/1180	72	12 / 50	85/70
400	27	151	54	2,97	4	1849	1490	112-4	75/95	1/XPZ/1030	79	9 / 25	73/67
	28	214	59	3,77	5,5	2344	2930	132-2	140/112	1/XPZ/1202	83	8 / 25	75/68
	29	249	61	4,2	5,5	2616	2930	132-2	112/100	1/XPZ/1162	84	8 / 25	76/68
	30	271	62	4,47	5,5	2781	2930	132-2	118/112	1/XPZ/1162	83	8 / 25	77/68
	31	310	64	4,96	5,5	3087	2930	132-2	112/118	1/XPZ/1162	81	8 / 25	79/69
	32	332	66	5,24	7,5	3262	2930	132-2	106/118	1/XPA/1150	77	11 / 50	79/69
	33	360	69	5,59	7,5	3479	2930	132-2	80/95	2/XPZ/1077	74	9 / 25	80/69
	34	390	69	5,97	7,5	3711	2930	132-2	75/95	2/XPZ/1077	74	9 / 25	82/69
	35	436	67	6,54	7,5	4068	2930	132-2	85/118	2/XPZ/1112	70	10 / 25	83/70
	37	479	67	7,08	11	4405	2950	160-2	75/112	2/XPZ/1140	79	8 / 25	85/70
	38	509	71	7,46	11	4641	2950	160-2	75/118	2/XPA/1107	61	14 / 50	86/71
500	40	④ 161	76	4,13	5,5	2085	2930	132-2	150/106	1/XPZ/1212	85	8 / 25	75/68
	41	④ 182	77	4,46	5,5	2250	2930	132-2	118/90	2/XPZ/1137	65	11 / 25	76/68
	42	④ 251	79	5,51	7,5	2781	2930	132-2	140/132	1/XPZ/1230	89	7 / 25	78/69
	43	④ 273	80	5,8	7,5	2930	2930	132-2	132/132	1/XPZ/1212	90	7 / 25	79/69
	44	④ 294	81	6,17	7,5	3113	2930	132-2	80/85	2/XPZ/1060	78	9 / 25	80/69
	45	④ 337	83	6,83	7,5	3447	2930	132-2	85/100	2/XPZ/1087	73	9 / 25	81/70
	46	③ 361	84	7,21	11	3639	2950	160-2	95/118	2/XPZ/1137	82	8 / 25	82/70
	47	③ 388	85	7,61	11	3842	2950	160-2	90/118	2/XPZ/1120	83	8 / 25	83/70
	48	③ 417	86	8,06	11	4068	2950	160-2	85/118	2/XPZ/1120	82	8 / 25	84/71
	49	③ 448	88	8,54	11	4309	2950	160-2	85/125	2/XPZ/1140	79	8 / 25	85/71
	50	③ 483	91	9,07	11	4578	2950	160-2	80/125	2/XPZ/1120	81	8 / 25	87/72

dP (mbar)		WT 0150 D114 / DN100												
	Q (m³/h)	T <sub>2</sub> (°C)	Pk (kW)	Pm (kW)	Ng (rpm)	Nm (rpm)	Motor frame	i	X	f(stat) (Hz)	Te(mm)/Fe(N)	Lp(A) (dB)		
200	01	493	45	3,84	5,5	2930	2930	132-2	106/106	1/XPZ/1137	90	7 / 25	78/69	
	02	523	45	4,04	5,5	3084	2930	132-2	95/100	1/XPA/1140	67	13 / 50	79/69	
	03	556	45	4,26	5,5	3256	2930	132-2	90/100	1/XPA/1140	67	13 / 50	80/70	
	05	607	44	4,6	5,5	3516	2930	132-2	75/90	2/XPZ/1060	70	10 / 25	81/70	
	06	631	45	4,76	5,5	3639	2930	132-2	95/118	1/XPZ/1140	86	7 / 25	82/71	
	08	684	46	5,11	7,5	3907	2930	132-2	75/100	2/XPZ/1087	82	10 / 25	83/71	
	09	730	47	5,4	7,5	4141	2930	132-2	75/106	2/XPZ/1087	71	10 / 25	84/72	
	10	776	48	5,73	7,5	4376	2930	2-132	112/75	2/XPZ/1112	73	9 / 25	72/85	
	11	822	48	6,03	7,5	4610	2930	132-2	75/118	2/XPZ/1112	72	10 / 25	87/73	
	300	13	472	57	5,5	7,5	2930	2930	132-2	132/132	1/XPZ/1212	95	6 / 25	79/70
		14	508	58	5,89	7,5	3134	2930	132-2	80/85	1/XPZ/1060	82	8 / 25	80/70
15		549	59	6,28	7,5	3343	2930	132-2	75/85	2/XPZ/1060	81	8 / 25	81/71	
16		576	60	6,53	7,5	3479	2930	132-2	106/125	1/XPA/1157	80	10 / 50	82/71	
18		629	62	7,04	11	3750	2950	160-2	80/125	2/XPZ/1162	77	9 / 25	83/72	
19		660	63	7,34	11	3909	2950	160-2	80/106	2/XPZ/1120	75	9 / 25	84/72	
20		697	64	7,69	11	4095	2950	160-2	85/118	2/XPZ/1120	75	9 / 25	85/73	
21		745	65	8,15	11	4388	2950	160-2	85/125	2/XPZ/1137	80	8 / 25	86/73	
23		791	65	8,6	11	4577	2950	160-2	75/118	2/XPA/1157	61	14 / 50	87/74	
400		25	478	72	7,61	11	3108	2950	160-2	112/118	1/XPA/1180	76	11 / 50	81/71
		26	512	73	8,04	11	3284	2950	160-2	106/118	1/XPA/1180	76	11 / 50	82/72
	27	551	74	8,51	11	3477	2950	160-2	112/132	1/XPA/1180	80	10 / 50	82/72	
	29	593	76	9,02	11	3688	2950	160-2	80/100	2/XPA/1090	67	13 / 50	83/72	
	30	628	79	9,46	11	3868	2950	160-2	90/118	2/XPZ/1150	76	9 / 25	84/73	
	31	672	82	10,02	11	4095	2950	160-2	85/118	2/XPZ/1150	75	9 / 25	85/73	
	33	720	84	10,62	15	4338	2950	160-2	85/125	2/XPZ/1150	78	9 / 25	87/74	
	34	773	85	11,28	15	4609	2950	160-2	80/125	2/XPA/1157	69	12 / 50	88/75	
	500	37	483	95	9,89	11	3278	2950	160-2	90/100	2/XPZ/1150	78	8 / 25	82/72
		38	521	95	10,47	15	3471	2950	160-2	85/100	2/XPA/1150	65	13 / 50	83/73
		39 ④	559	96	11,05	15	3664	2950	160-2	95/118	2/XPZ/1150	80	8 / 25	84/73
41 ④		599	99	11,67	15	3868	2950	160-2	90/118	2/XPZ/1150	83	8 / 25	85/74	
42 ④		644	101	12,35	15	4095	2950	160-2	85/118	2/XPA/1150	69	12 / 50	86/74	
44 ④		691	104	13,05	15	4327	2950	160-2	90/132	2/XPA/1150	72	12 / 50	87/75	
45 ③		741	108	13,82	18,5	4581	2950	160-2	85/132	2/XPA/1150	71	12 / 50	89/75	

dP (mbar)		WT 0280				D159 / DN150							
	Q (m³/h)	T <sub>2</sub> (°C)	Pk (kW)	Pm (kW)	Ng (rpm)	Nm (rpm)	Motor frame	i	X	f(stat) (Hz)	Te(mm)/Fe(N)	Lp(A) (dB)	
200	01	698	42	5,49	7,5	2275	2930	132-2	170/132	1/XPZ/1550	67	9 / 25	79/64
	02	808	44	6,23	7,5	2578	2930	132-2	150/132	1/XPZ/1520	67	9 / 25	81/65
	03	874	45	6,67	7,5	2763	2930	132-2	140/132	1/XPZ/1520	66	10 / 25	82/66
	04	934	47	7,08	11	2930	2950	160-2	132/132	1/XPA/1582	60	13 / 50	83/67
	05	1061	49	7,93	11	3282	2950	160-2	125/140	1/XPA/1582	59	14 / 50	85/68
	06	1131	50	8,4	11	3476	2950	160-2	118/140	1/XPA/1557	59	14 / 50	86/69
	07	1221	50	8,99	11	3725	2950	160-2	118/150	1/XPA/1582	58	14 / 50	88/70
	08	1292	51	9,48	11	3924	2950	160-2	112/150	1/XPA/1582	57	14 / 50	89/70
300	11	685	58	9,65	11	2344	2950	160-2	200/160	1/XPA/1732	56	15 / 50	81/66
	12	770	60	9,65	11	2578	2950	160-2	150/132	1/XPA/1600	60	13 / 50	82/66
	13	845	61	9,65	11	2786	2950	160-2	180/170	1/XPZ/1732	62	12 / 50	83/67
	14	971	63	10,86	15	3134	2950	160-2	160/170	1/XPA/1732	60	13 / 50	85/69
	15	1046	64	11,58	15	3343	2950	160-2	150/170	1/XPA/1732	60	13 / 50	86/69
	16	1130	65	12,39	15	3576	2950	160-2	132/160	2/XPA/1650	47	19 / 50	88/70
	17	1236	65	13,4	15	3868	2950	160-2	90/118	2/XPA/1507	52	16 / 50	89/72
	18	1330	69	14,31	18,5	4130	2950	160-2	100/140	2/XPA/1532	55	15 / 50	90/72
400	21	705	80	11,32	15	2508	2950	160-2	200/170	1/XPA/1782	61	13 / 50	83/67
	22	802	80	12,54	15	2777	2950	160-2	170/160	1/XPA/1700	63	12 / 50	84/68
	23	865	79	13,32	15	2950	2950	160-2	125/125	2/XPZ/1587	61	10 / 25	85/69
	24	940	83	14,27	18,5	3161	2960	160-2	140/150	2/XPZ/1600	66	9 / 25	86/70
	25 ④	1053	88	15,7	18,5	3477	2960	160-2	112/132	2/XPA/1532	56	15 / 50	88/71
	26 ④	1153	89	16,93	22	3750	2960	180-2	118/150	2/XPA/1500	62	13 / 50	89/73
	27 ④	1244	88	18,06	22	4000	2960	180-2	118/160	2/XPA/1500	62	13/50	90/74
500	31 ④	695	103	14,49	18,5	2603	2960	160-2	170/150	2/XPZ/1650	66	9 / 25	84/69
	32 ④	754	105	15,39	18,5	2766	2960	160-2	160/150	2/XPZ/1637	66	9 / 25	85/70
	33 ③	887	109	17,44	22	3134	2960	180-2	160/170	2/XPZ/1600	72	8 / 25	87/71
	34 ③	964	112	18,61	22	3343	2960	180-2	150/170	2/XPZ/1600	71	8 / 25	88/72
	35 ③	1050	114	19,93	30	3582	2970	200-2	140/170	3/XPA/1532	51	17 / 50	89/73
	36 ③	1138	115	21,29	30	3825	2970	200-2	132/170	3/XPA/1507	53	16 / 50	90/74
	37 ④	1216	117	22,48	30	4039	2970	200-2	125/170	3/XPA/1507	58	16 / 50	91/75

dP (mbar)		WT 0390				D159 / DN150							
		Q (m³/h)	T <sub>2</sub> (°C)	Pk (kW)	Pm (kW)	Ng (rpm)	Nm (rpm)	Motor frame	i	X	f(stat) (Hz)	Te(mm)/Fe(N)	Lp(A) (dB)
200	01	1410	51	10,6	15	3136	2960	160-2	118/125	2/XPZ/1587	61	10 / 25	86/71
	02	1499	50	11,2	15	3311	2960	160-2	118/132	2/XPZ/1587	60	10 / 25	87/72
	03	1589	50	11,79	15	3489	2960	160-2	112/132	2/XPZ/1587	60	11 / 25	88/72
	04	1685	49	12,46	15	3686	2960	160-2	106/132	2/XPZ/1587	59	11 / 25	89/73
	05	1798	49	13,22	15	3909	2960	160-2	106/140	2/XPZ/1587	59	11 / 25	90/73
	06	1907	54	13,9	18,5	4111	2970	160-2	90/125	2/XPA/1557	48	18 / 50	91/74
300	09	1375	66	15,44	18,5	3182	2970	160-2	140/150	2/XPA/1600	51	17 / 50	87/72
	10	1534	69	16,98	18,5	3500	2970	160-2	112/132	2/XPA/1532	52	16 / 50	88/73
	12	1685	65	18,31	22	3775	2970	180-2	118/150	2/XPA/1482	63	13 / 50	90/74
	14	1814	71	19,54	22	4027	2970	180-2	118/160	2/SPA/1482	63	13 / 50	91/75
400	17	1426	86	21,28	30	3366	2970	200-2	150/170	3/XPA/1550	52	17 / 50	88/74
	18	1495	86	22,13	30	3502	2970	200-2	190/224	2/XPA/1650	63	13 / 50	89/75
	20	1659	87	24,18	30	3825	2970	200-2	132/170	3/XPA/1507	56	15 / 50	91/76
	21 ④	1773	98	25,6	30	4050	2970	200-2	132/180	3/XPA/1500	59	14 / 50	92/76
500	25 ④	1413	114	27,22	37	3494	2970	200-2	170/200	2/XPA/1600	67	12 / 50	89/76
	26 ④	1526	112	28,8	37	3696	2970	200-2	180/224	2/XPA/1650	67	12 / 50	91/76
	27 ④	1636	113	30,34	37	3894	2970	200-2	180/236	2/XPA/1657	69	12 / 50	92/77
	29 ③	1751	121	32,12	37	4123	2970	200-2	170/236	2/XPA/1650	70	11 / 50	93/78



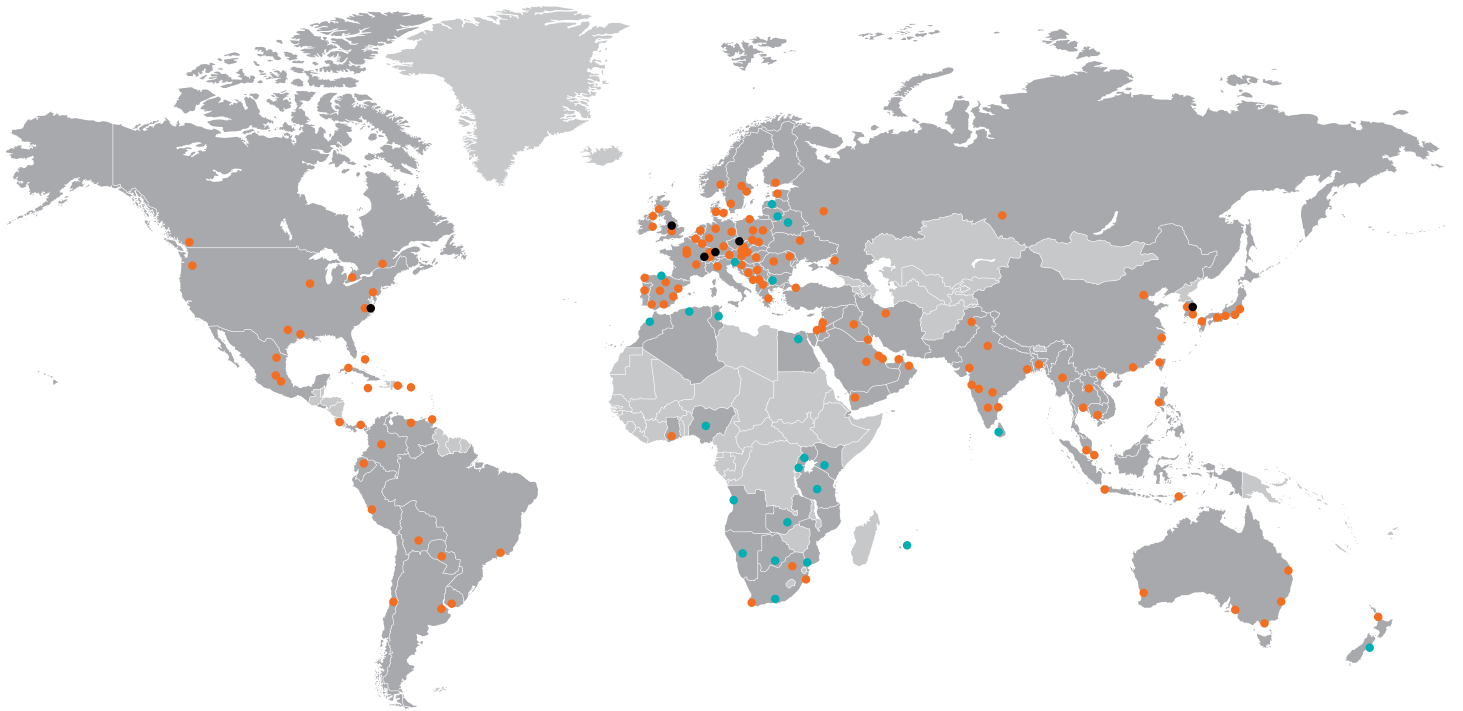




# Busch

## Vacuum Solutions

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