



TYR ROTARY LOBE BLOWERS

**Technical overview
Generation C
Overpressure**

TYR WT 0100 – 0730 C

Rotary Lobe Blowers – Overpressure

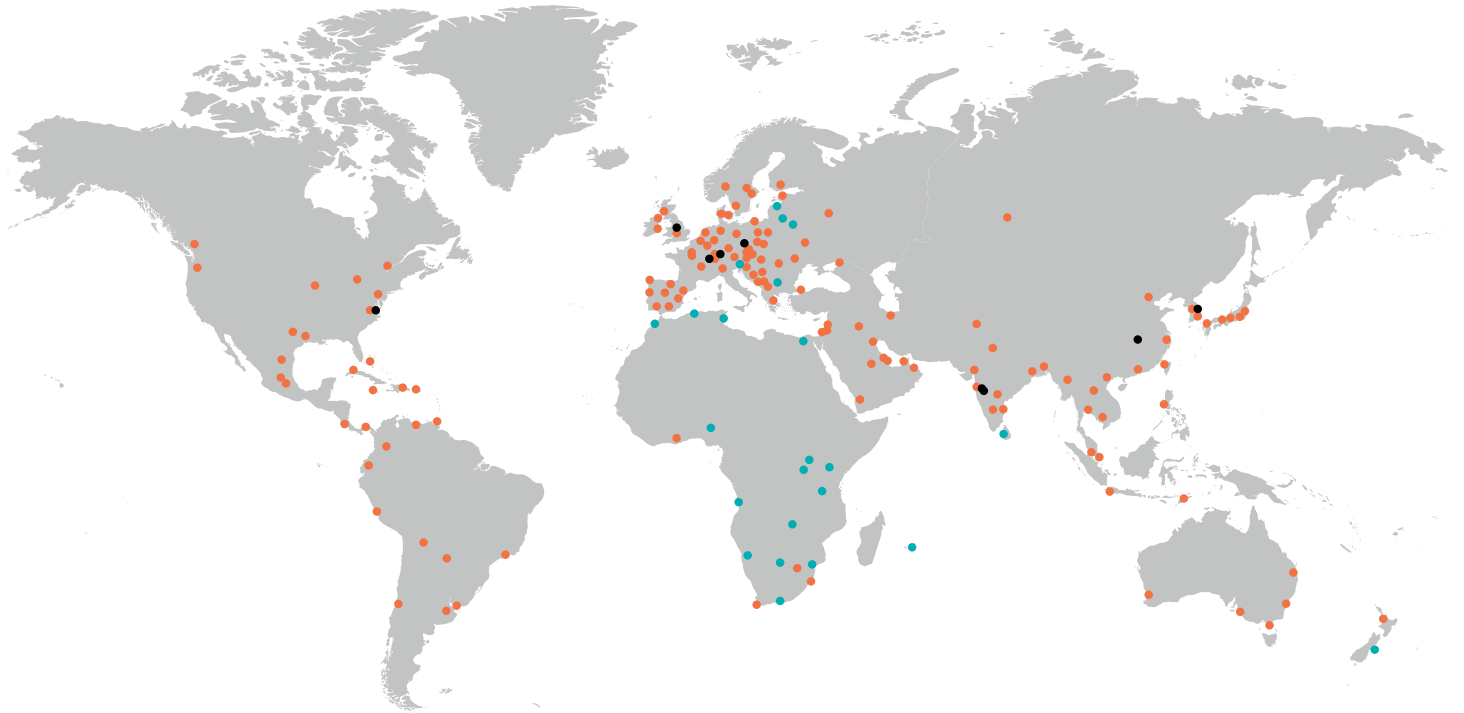
- ISO standard reference conditions ($T_1=20^{\circ}\text{C}$, altitude = 0m, dry air)
- Noise level according to ISO 2151
- Parameters and tolerances according to ISO 1217
- Units marked with blue color can be used only with cooling system
- Units marked with green color require belt drive for high load
- 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

| | |
|----------------------|--|
| dP | Differential pressure (incl. losses) |
| HL | Belt drive for high load |
| Q | Inlet flow |
| T₁ | Inlet air temperature |
| T₂ | Outlet air temperature |
| P_k | Power consumption |
| P_m | Nominal motor rating |
| N_g | Rotational speed of blower |
| N_m | Rotational speed of motor |
| Motor frame | Motor size with poles |
| i | Diameter of blower pulley / motor pulley |
| X | Quantity and type of v-belt |
| f(stat) (Hz) | Frequency of v-belt tension by laser tool |
| Te(mm)/Fe(N) | Values for tension of v-belt by „Belt Tension Tester“ Te: indentation depth Fe: test force |
| Lp(A) (dB) | Noise level without / with acoustic enclosure |

| dP (mbar) | | WT 0100 D114 / DN100 | | | | | | | | | | | | |
|-----------|----------|----------------------|---------|---------|----------|----------|-------------|-------|---------|--------------|--------------|------------|---------|-------|
| | Q (m³/h) | T ₂ (°C) | Pk (kW) | Pm (kW) | Ng (rpm) | Nm (rpm) | Motor frame | i | X | f(stat) (Hz) | Te(mm)/Fe(N) | Lp(A) (dB) | | |
| 300 | 01 | 152 | 56 | 2,01 | 3 | 1632 | 1460 | 100-4 | 85/95 | 1/XPA/1055 | 76 | 11 / 50 | 71/66 | |
| | 02 | 212 | 54 | 2,59 | 3 | 2096 | 2910 | 100-2 | 118/85 | 1/XPZ/1080 | 74 | 9 / 25 | 73/67 | |
| | 03 | 241 | 53 | 2,87 | 4 | 2328 | 2910 | 112-2 | 100/80 | 1/XPZ/1047 | 87 | 7 / 25 | 74/67 | |
| | 04 | 274 | 52 | 3,19 | 4 | 2587 | 2910 | 112-2 | 90/80 | 1/XPZ/1047 | 85 | 8 / 25 | 75/67 | |
| | 05 | 341 | 51 | 3,83 | 5,5 | 3106 | 2930 | 132-2 | 100/106 | 1/XPZ/1120 | 90 | 7 / 25 | 78/68 | |
| | 06 | 362 | 51 | 4,03 | 5,5 | 3269 | 2930 | 132-2 | 95/106 | 1/XPZ/1120 | 85 | 8 / 25 | 79/68 | |
| | 07 | 394 | 51 | 4,34 | 5,5 | 3516 | 2930 | 132-2 | 75/90 | 2/XPZ/1060 | 66 | 10 / 25 | 80/69 | |
| | 08 | 419 | 51 | 4,58 | 5,5 | 3711 | 2930 | 132-2 | 75/95 | 2/XPZ/1060 | 69 | 10 / 25 | 81/69 | |
| | 09 | 445 | 51 | 5,02 | 5,5 | 4068 | 2930 | 132-2 | 85/118 | 2/XPZ/1140 | 62 | 11 / 25 | 82/69 | |
| | 10 | 494 | 50 | 5,3 | 7,5 | 4297 | 2930 | 132-2 | 90/132 | 1/XPA/1150 | 74 | 11 / 50 | 83/69 | |
| | 11 | 535 | 50 | 5,69 | 7,5 | 4610 | 2930 | 132-2 | 75/118 | 2/XPZ/1112 | 72 | 10 / 25 | 85/70 | |
| 400 | 13 | 154 | 68 | 2,76 | 4 | 1718 | 1460 | 112-4 | 85/100 | 2/XPZ/1060 | 76 | 9 / 25 | 72/67 | |
| | 14 | 215 | 65 | 3,53 | 4 | 2196 | 2910 | 112-2 | 106/80 | 1/XPZ/1060 | 87 | 8 / 25 | 75/68 | |
| | 15 | 248 | 64 | 3,92 | 5,5 | 2442 | 2930 | 132-2 | 150/125 | 2/XPZ/1250 | 61 | 11 / 25 | 76/68 | |
| | 16 | 272 | 63 | 4,24 | 5,5 | 2637 | 2930 | 132-2 | 100/90 | 2/XPZ/1120 | 68 | 10 / 25 | 77/68 | |
| | 17 | 332 | 62 | 4,99 | 7,5 | 3104 | 2930 | 132-2 | 118/125 | 1/XPZ/1180 | 92 | 7 / 25 | 79/69 | |
| | 18 | 360 | 61 | 5,34 | 7,5 | 3321 | 2930 | 132-2 | 75/85 | 2/XPZ/1047 | 78 | 9 / 25 | 80/69 | |
| | 19 | 400 | 61 | 5,85 | 7,5 | 3639 | 2930 | 132-2 | 95/118 | 1/XPA/1140 | 76 | 11 / 50 | 81/69 | |
| | 20 | 427 | 60 | 6,17 | 7,5 | 3842 | 2930 | 132-2 | 90/118 | 1/XPA/1140 | 75 | 11 / 50 | 82/70 | |
| | 21 | 455 | 60 | 6,54 | 7,5 | 4069 | 2930 | 132-2 | 90/125 | 1/XPA/1140 | 75 | 11 / 50 | 83/70 | |
| | 22 | 489 | 60 | 6,95 | 11 | 4322 | 2950 | 160-2 | 80/118 | 2/XPZ/1112 | 82 | 8 / 25 | 84/70 | |
| | 500 | 25 | 158 | 68 | 3,6 | 4 | 1818 | 1460 | 112-4 | 106/132 | 1/XPZ/1137 | 95 | 6 / 25 | 74/67 |
| 26 | | 218 | 70 | 4,53 | 5,5 | 2289 | 2930 | 132-2 | 160/125 | 1/XPZ/1250 | 85 | 8 / 25 | 76/68 | |
| 27 | | 244 | 69 | 4,92 | 5,5 | 2485 | 2930 | 132-2 | 125/106 | 1/XPZ/1162 | 85 | 8 / 25 | 77/68 | |
| 28 | | 280 | 67 | 5,47 | 7,5 | 2763 | 2930 | 132-2 | 140/132 | 1/XPZ/1230 | 90 | 7 / 25 | 78/69 | |
| 29 | | 343 | 65 | 6,45 | 7,5 | 3256 | 2930 | 132-2 | 90/100 | 2/XPZ/1087 | 74 | 9 / 25 | 80/70 | |
| 30 | | 368 | 65 | 6,84 | 7,5 | 3453 | 2950 | 132-2 | 112/132 | 1/XPZ/1187 | 90 | 7 / 25 | 81/70 | |
| 31 | | 392 | 66 | 7,22 | 11 | 3646 | 2950 | 160-2 | 90/112 | 2/XPZ/1137 | 81 | 8 / 25 | 82/70 | |
| 32 | | 424 | 69 | 7,7 | 11 | 3887 | 2950 | 160-2 | 85/112 | 2/XPZ/1137 | 81 | 8 / 25 | 83/70 | |
| 33 | | 455 | 71 | 8,18 | 11 | 4130 | 2950 | 160-2 | 80/112 | 2/XPZ/1137 | 80 | 8 / 25 | 84/71 | |
| 34 | | 483 | 73 | 8,62 | 11 | 4351 | 2950 | 160-2 | 80/118 | 2/XPZ/1137 | 79 | 8 / 25 | 85/71 | |
| 600 | | 37 | 152 | 71 | 4,29 | 5,5 | 1821 | 1460 | 132-4 | 85/106 | 2/XPZ/1087 | 85 | 8 / 25 | 75/68 |
| | 38 | 214 | 76 | 5,43 | 7,5 | 2305 | 2930 | 132-2 | 150/118 | 1/XPZ/1230 | 94 | 6 / 25 | 77/69 | |
| | 39 | 249 | 77 | 6,07 | 7,5 | 2578 | 2930 | 132-2 | 150/132 | 1/XPZ/1230 | 92 | 7 / 25 | 78/69 | |
| | 40 | 274 | 78 | 6,53 | 7,5 | 2773 | 2930 | 132-2 | 112/106 | 1/XPA/1140 | 80 | 10 / 50 | 79/69 | |
| | 41 | 337 | 78 | 7,7 | 11 | 3269 | 2950 | 160-2 | 95/106 | 2/XPZ/1120 | 85 | 8 / 25 | 81/70 | |
| | 42 | 364 | 77 | 8,18 | 11 | 3474 | 2950 | 160-2 | 90/106 | 2/XPZ/1120 | 84 | 8 / 25 | 82/71 | |
| | 43 | 391 | 77 | 8,68 | 11 | 3688 | 2950 | 160-2 | 100/125 | 2/XPA/1157 | 65 | 13 / 50 | 83/71 | |
| | 44 | 417 | 78 | 9,17 | 11 | 3894 | 2950 | 160-2 | 100/132 | 2/XPZ/1187 | 81 | 8 / 25 | 84/71 | |
| | 45 | 443 | 79 | 9,65 | 11 | 4099 | 2950 | 160-2 | 95/132 | 2/XPZ/1180 | 76 | 9 / 25 | 85/72 | |
| | 46 | 482 | 80 | 10,37 | 15 | 4405 | 2950 | 160-2 | 75/112 | 3/XPZ/1112 | 82 | 8 / 25 | 87/72 | |
| | 700 | 49 | 159 | 93 | 5,26 | 7,5 | 1927 | 1460 | 132-4 | 100/132 | 2/XPZ/1162 | 88 | 7 / 25 | 76/69 |
| 50 | | 214 | 97 | 6,42 | 7,5 | 2353 | 2930 | 132-2 | 132/106 | 1/XPA/1180 | 79 | 10 / 50 | 78/69 | |
| 51 | | 244 | 94 | 7,08 | 11 | 2596 | 2950 | 160-2 | 150/132 | 1/XPA/1250 | 86 | 9 / 50 | 79/70 | |
| 52 | | 271 | 92 | 7,64 | 11 | 2800 | 2950 | 160-2 | 118/112 | 2/XPZ/1162 | 83 | 8 / 25 | 80/70 | |
| 53 | | 334 | 89 | 8,98 | 11 | 3292 | 2950 | 160-2 | 95/106 | 2/XPZ/1112 | 85 | 8 / 25 | 83/71 | |
| 54 | | 358 | 88 | 9,5 | 11 | 3481 | 2950 | 160-2 | 100/118 | 2/XPZ/1140 | 82 | 8 / 25 | 83/71 | |
| 55 | | 384 | 85 | 10,1 | 15 | 3688 | 2950 | 160-2 | 100/125 | 2/XPZ/1162 | 79 | 8 / 25 | 84/72 | |
| 56 | | 436 | 78 | 11,17 | 15 | 4095 | 2950 | 160-2 | 85/118 | 2/XPZ/1140 | 84 | 8 / 25 | 86/72 | |
| 58 | | 466 | 80 | 11,8 | 15 | 4327 | 2950 | 160-2 | 90/132 | 2/XPZ/1162 | 85 | 7 / 25 | 87/73 | |
| 59 | | 499 | 84 | 12,5 | 15 | 4581 | 2950 | 160-2 | 85/132 | 2/XPZ/1162 | 86 | 7 / 25 | 89/73 | |
| 800 | | 61 | 154 | 105 | 6,02 | 7,5 | 1941 | 2930 | 132-2 | 160/106 | 1/XPA/1232 | 79 | 10 / 50 | 77/69 |
| | 62 | 221 | 103 | 7,63 | 11 | 2458 | 2950 | 160-2 | 150/125 | 2/XPZ/1230 | 80 | 8 / 25 | 80/70 | |
| | 63 | 245 | 103 | 8,2 | 11 | 2644 | 2950 | 160-2 | 106/95 | 2/XPZ/1112 | 89 | 7 / 25 | 80/70 | |
| | 64 | 265 | 102 | 8,69 | 11 | 2803 | 2950 | 160-2 | 100/95 | 2/XPZ/1112 | 80 | 8 / 25 | 81/71 | |
| | 65 | 352 | 99 | 10,8 | 15 | 3481 | 2950 | 160-2 | 100/118 | 2/XPZ/1150 | 81 | 8 / 25 | 84/72 | |
| | 66 | 375 | 96 | 11,37 | 15 | 3664 | 2950 | 160-2 | 95/118 | 2/XPZ/1140 | 84 | 8 / 25 | 85/72 | |
| | 67 | 403 | 91 | 12,04 | 15 | 3882 | 2950 | 160-2 | 95/125 | 2/XPZ/1162 | 82 | 8 / 25 | 86/73 | |
| | 68 | 431 | 87 | 12,72 | 15 | 4099 | 2950 | 160-2 | 95/132 | 2/XPZ/1162 | 84 | 8 / 25 | 87/73 | |
| | 69 | 460 | 89 | 13,42 | 15 | 4327 | 2950 | 160-2 | 90/132 | 2/XPZ/1162 | 86 | 7 / 25 | 88/74 | |
| | 70 | 494 | 94 | 14,26 | 18,5 | 4597 | 2960 | 160-2 | 85/132 | 2/XPA/1150 | 86 | 12 / 50 | 90/74 | |
| | 900 | 74 | ③ 212 | 116 | 8,46 | 11 | 2434 | 2950 | 160-2 | 160/132 | 2/XPZ/1280 | 76 | 9 / 25 | 80/71 |
| 75 | | ③ 239 | 112 | 9,19 | 11 | 2643 | 2950 | 160-2 | 125/112 | 2/XPZ/1180 | 82 | 8 / 25 | 81/71 | |
| 76 | | 278 | 106 | 10,26 | 15 | 2950 | 2950 | 160-2 | 125/125 | 2/XPZ/1212 | 77 | 9 / 25 | 83/72 | |
| 77 | | 323 | 107 | 11,49 | 15 | 3304 | 2950 | 160-2 | 100/112 | 2/XPZ/1140 | 86 | 7 / 25 | 85/72 | |
| 78 | | 370 | 105 | 12,77 | 15 | 3674 | 2950 | 160-2 | 106/132 | 2/XPZ/1212 | 81 | 8 / 25 | 86/73 | |
| 79 | | ③ 398 | 101 | 13,54 | 15 | 3894 | 2950 | 160-2 | 100/132 | 2/XPZ/1187 | 85 | 7 / 25 | 87/74 | |
| 80 | | ③ 427 | 97 | 14,3 | 18,5 | 4113 | 2960 | 160-2 | 95/132 | 2/XPZ/1187 | 84 | 7 / 25 | 88/74 | |
| 81 | | ③ 459 | 102 | 15,16 | 18,5 | 4362 | 2960 | 160-2 | 95/140 | 2/XPA/1180 | 72 | 12 / 50 | 90/75 | |
| 82 | | ③ 476 | 106 | 15,62 | 18,5 | 4493 | 2960 | 160-2 | 112/170 | 2/XPZ/1250 | 86 | 7 / 25 | 90/75 | |
| 1000 | | 86 | ④ 215 | 123 | 9,63 | 11 | 2502 | 2950 | 160-2 | 125/106 | 2/XPZ/1180 | 83 | 8 / 25 | 82/71 |
| | | 87 | ③ 251 | 116 | 10,71 | 15 | 2781 | 2950 | 160-2 | 140/132 | 1/XPA/1250 | 84 | 9 / 50 | 83/2 |
| | 88 | ③ 272 | 111 | 11,36 | 15 | 2950 | 2950 | 160-2 | 125/125 | 2/XPZ/1202 | 82 | 8 / 25 | 84/72 | |
| | 89 | ③ 340 | 118 | 13,39 | 15 | 3478 | 2950 | 160-2 | 112/132 | 2/XPZ/1202 | 85 | 7 / 25 | 86/73 | |
| | 90 | ④ 365 | 116 | 14,14 | 18,5 | 3674 | 2960 | 160-2 | 106/132 | 2/XPZ/1202 | 84 | 7 / 25 | 87/74 | |
| | 91 | ④ 393 | 111 | 14,99 | 18,5 | 3894 | 2960 | 160-2 | 100/132 | 2/XPZ/1187 | 88 | 7 / 25 | 88/74 | |
| | 92 | ④ 431 | 107 | 16,13 | 18,5 | 4189 | 2960 | 160-2 | 106/150 | 2/XPA/1207 | 73 | 12 / 50 | 90/75 | |
| | 94 | ④ 470 | 106 | 15,62 | 18,5 | 4493 | 2930 | 160-2 | 112/170 | 2/XPZ/1250 | 86 | 7 / 25 | 90/75 | |

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