



Shown model in basement configuration with B3 foot mounted motor and X control

GT-H-T40

Integrally geared single stage turbocompressor

Compressor Type

| | |
|------------------------------|--|
| Medium | Air |
| Compressor type | Integrally geared Single Stage Turbocompressor |
| Frame family | GT-H-T40 |
| Frame | (L)ow pressure / (H)igh pressure |
| Regulation systems available | X – Variable Discharge Diffuser (1-point) XY – Variable Discharge Diffuser & IGV (2-point) |
| Motor power range | Up to 800 kW |
| Mounting versions available | For B3 motor type with common basement |
| Weight (approximate) | Compressor Core Unit 2.200 kg Compressor B3 with 600 kW motor 5.000 kg <i>Specific weight depends on motor size and starter auxiliaries selected</i> |
| Compressor floor mounting | Machine mounts, glued or bolted |

Performance data

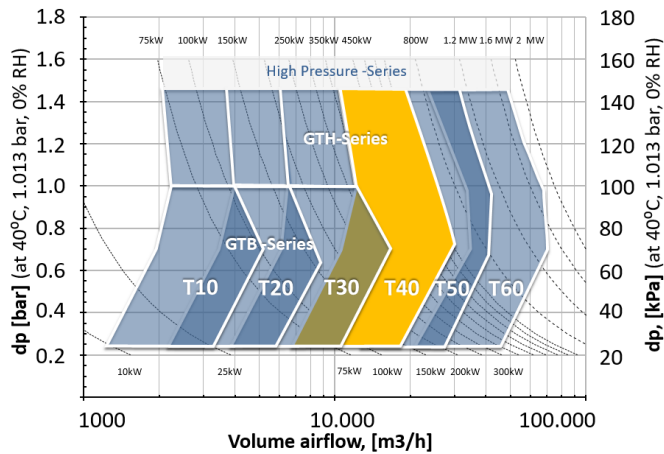
| | |
|------------------------------|--|
| Design flow range | 11.000 to 25.000 m ³ /h defined at 40° C, 1.013 bar 65% rH |
| Flow regulation range | From 40 – 100% design flow |
| Design pressure range | 0,3 to 1,45 bar(g) defined at 40° C, 1.013 bar 65% rH |
| Vibration level | below 2.8 mm/s according to ISO 10816-1 |
| Sound emission (1m distance) | Without noise enclosure: 94 dB(A) With noise enclosure: 80+/-3 dB(A) <i>Conditions: Well isolated main discharge pipe; Measured according sound pressure ISO3746</i> |
| Discharge velocity | Below 25 m/s after discharge diffuser |

Ambient conditions

| | |
|---------------------------------------|----------------|
| Inlet temperature range | -20° to +55° C |
| Ambient temperature range | 0° to +55° C |
| H ₂ S Content in inlet air | Up to 10 ppm |

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Design point envelope boundaries of product family

Materials

| | |
|-----------------------|---|
| Main castings | Nodular cast iron EN GJS-400/15 EN1563, design: 6,5 bar, 200°C |
| Impeller | Aluminum DIN3.1924 AlCu2MgNi – milled from solid |
| Labyrinth seals | Aluminum alloy |
| Mechanical components | Steel 34CrNiMo6 |
| Vanes | Brass, aluminum alloy or stainless steel |
| Gearwheels | High tensile steel 16NiCrS4, hardened and ground |
| Bearing fast shaft | Hydrodynamic bearing (tilting-pad type) |
| Bearing slow shaft | Hydrodynamic or deep groove ball bearings |
| Lubrication | Forced oil lubrication with integrated mechanical and electrical positive displacement oil pumps, oil/air or water cooler, oil filter 10 µm |

Component Description

Compressor drive

| | |
|-------------------------------|--|
| Motor type | E-motor, AC squirrel cage, B3 |
| Protection / insulation class | IP55 / F/B or F/F |
| Motor voltage, frequency | Low voltage, medium voltage, 50/60 Hz |
| Coupling | B3 configuration: Flexible disc coupling with spacer |

Inlet systems

| | |
|----------------|--|
| Inlet filter | First coarse stage G2; main stage with G4 bag type filters |
| Inlet silencer | Labyrinth type with no foam |

Discharge systems

| | |
|--------------------|---|
| Flexible joint | DN250/DN300, bellow of stainless steel AISI 321, flanges aluminum DIN2501 PN10 |
| Discharge diffuser | DN250/DN300/700, carbon steel, silenced, flanged DIN2501 PN10 |
| Blow-off-valve | DN125/150, electrically actuated, butterfly valve in nodular cast iron EN GJS-400, silenced |
| Check valve | DN250/DN300-700, dual flap wafer type, nodular cast iron EN GJS-400 |

Panels and Instrumentation

| | |
|---------------------|---|
| Local Control panel | Siemens, Allen Bradley, Telemecanique PLC; 7 or 9" color HMI |
| Instrumentation | Oil/Air Temperature, Oil/Air Pressure, PSL Oil, LSL-LI Oil, PDT, PDT at air inlet |
| Surge switch device | At compressor inlet |

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