

QUESTIONNAIRE LIST

**for Gas Chromatograph analyzer**

**MAG**

**for laboratory purpose**

|  |
| --- |
| **General Information** |
| Company |   | Date |   |
| Customer’s full name |   | Phone, e-mail |   |
| Questionnaire No. |  | Quantity |  |

To get a technical and commercial proposal fill in this questionnaire and send it to NTF BACS LLC, e-mail: **kom@bacs.ru** or via fax #: (846) 932-05-71

|  |  |
| --- | --- |
| **Facility / Laboratory** |  |
| **Production or process** |  |
| **Purpose of analysis** |  |
|  | (for instance, process control, commercial metering, etc.) |

# Composition of analyzed fluid

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item No. | Specify components | Specify detected components | Concentration | Units: % v, % mass, mg/m3, ppm |
| Min | Norm | Max |
| 1 |   | [ ]  |  |  |  |  |
| 2 |  | [ ]  |  |  |  |  |
| 3 |  | [ ]  |  |  |  |  |
| 4 |  | [ ]  |  |  |  |  |
| 5 |  | [ ]  |  |  |  |  |
| 6 |  | [ ]  |  |  |  |  |
| 7 |  | [ ]  |  |  |  |  |
| 8 |  | [ ]  |  |  |  |  |
| 9 |  | [ ]  |  |  |  |  |
| 10 |  | [ ]  |  |  |  |  |
| 11 |  | [ ]  |  |  |  |  |
| 12 |  | [ ]  |  |  |  |  |

|  |  |
| --- | --- |
| **Analytical duration, minutes** |  |
| **Regulatory document for measurement method** (GOST, STO, MI, RD, etc.) |  |

# Analyzed product properties

|  |  |
| --- | --- |
| **Number of analyzed samples** |  |
| **!***This chromatograph can analyze u to 6* ***gaseous*** *samples from various samplers connected to it, in alternate manner automatically.* *If more than one sample is analyzed, specify temperature, pressure and components list for each sample.* |
| **Analyzed sample switching** | [ ]  automatic [ ]  manual |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item No. | Parameter | Min | Norm | Max |
| 1 | Sample operating pressure, MPa  |  |  |  |
| 2 | Sample temperature, °С |  |  |  |
| 3 | Water dew point at operating pressure, °С (for gases)  |  |  |  |
| 4 | Boiling temperature, °С (for liquids) |  |  |  |

|  |  |
| --- | --- |
| **Physical state of analyzed product** |  |
| **Solids** (size, composition) |  | concentration, mg/m3 |  |
| **Stability:** polymerization, decomposition etc. |  |
| **Corrosive components** (acids, sulfur compounds) |  |
| Approximate concentration of corrosive components, mg/m3 |  |

### Chromatograph installation point

|  |  |
| --- | --- |
| **Location** (fixed-site, mobile laboratory, other) |  |
| **Temperature at chromatograph installation point,** °С | Max |  | Min |  |
| **Air humidity at installation point**, no more than |  | %RH |

### Data transmission

|  |  |  |
| --- | --- | --- |
| Additional equipment | [ ]  personal computer | [ ]  laptop |

|  |  |  |
| --- | --- | --- |
| Communication interfaces | [ ]  Ethernet | [ ]  RS232/485  |
| [ ]  Wi-Fi | Other:  |

|  |  |
| --- | --- |
| Information display and input into chromatograph | [ ]  Touchscreen LCD |

###  Gas feed (available from the Customer)

 [ ]  Instrumentation air pressure, MPa\_\_\_\_\_\_\_\_\_\_\_\_ [ ]  Hydrogen

 [ ]  Nitrogen [ ]  Argon

 [ ]  Helium [ ]  Reference gas

**SSRS (state standard reference sample) needed** for calibration [ ]  yes [ ]  no

### Additional information

|  |
| --- |
| Equipment and components supplied by Customer’s request |
| [ ]  Samplers | [ ]  Pressure regulator for SSRS[ ]  Leak valve from SSRS cylinder[ ]  40 l cylinders with carrier gas[ ]  Cylinder rack for carrier gas[ ]  Cylinder rack for calibration gas[ ]  Uninterrupted power supply |
| Type |  |  |  |
| Number, pcs. |  |  |  |
| Volume, l |  |  |  |
| [ ]  Pressure regulator for samplers[ ]  Leak valve for samplers[ ]  Microsyringes for liquid sample input |  |
| Number, pcs. |  |  |  |
| Volume, mcl |  |  |  |
|  |  |

**Specify if the following is necessary:**

* commissioning operations [ ]  yes [ ]  no
* servicing personnel training [ ]  yes [ ]  no
* operational maintenance [ ]  yes [ ]  no
* measurement method development and certification [ ]  yes [ ]  no

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SPTA needed** | [ ]  yes, for |  | years of operation |  [ ]  no |

**Other requirements:**

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
| **Date** |  | 20 | (year) | **Signature** |  | / |  |
|  |  |  |  |  |  | Full Name |