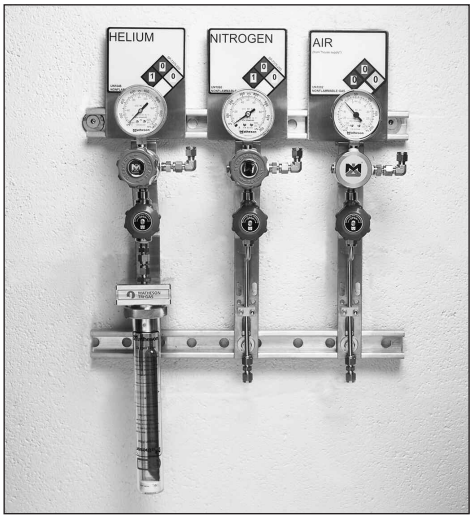
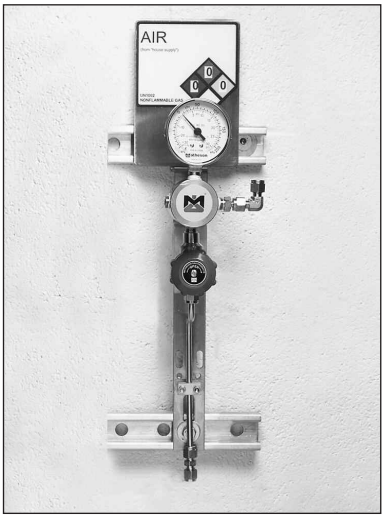
GasTrak™ Delivery/Control Systems



GasTrak™ System (delivering 3 gases)



Single GasTrak™ Station

Introduction

Matheson's GasTrak™ Control Systems represent a practical approach to controlling and delivering low or high purity gases for distribution to "point-of-use" locations to meet the operating requirements in today's laboratory environment. GasTrak™ Systems provide a cost effective, efficient and safer alternative to maintaining gas cylinders in the laboratory environment as the main source of gas supply. The GasTrak™ Control System is a simplified design which offers the ability to regulate gas operating pressure, provide gas purification and flow control within a single dedicated "GasTrak™ Station" for each specific gas being utilized and distributed within the lab. The individual "GasTrak™ Stations" can be wall mounted at the point-of-use for local instrument source control; or each of the individual "GasTrak™ Stations" can be combined into a complete system to provide centralized source control of multiple gases being used.

Design Features/Components

- Ideal for High (UHP 99.999%+) or Low Purity Gas Delivery – available in brass or stainless steel materials.
- Control features include: Pressure Regulation, Purification and Flow Control.
- Provides individual gas control/delivery stations for "point-of-use" delivery to analytical instruments.
- Combines up to five gases into a central control system.
- Gas specific labeling for each individual control/delivery station.
- Three Operating Pressure Ranges: 0-30 psig / 0-100 psig / 0-200 psig.*
- 1/4" Compression Fitting Standard inlet & outlet connections.
- Design allows convenient access to all components.
- Compact design is cost effective to implement.
- Pre-assembled system design prior to shipment.
- Wall mounted U-Channel frames make it easy to install.

Applications

- Provide the end-user with efficient control and delivery of multiple gases for individual instrument point-of-use or for controlling multiple gas sources within a single centralized system.
- Control the delivery of gases for several instruments, a specific zone (location) within a lab or the entire gas delivery requirements into a laboratory.

Materials of Construction

Wetted Components:	Brass or stainless steel
Regulator Seat:	Telfon
Valve Seat:	Kel-F
Purifier Cartridge Housing:	Glass encased w/polycarbonate housing
Purifier Baseplate:	Anodized aluminum
U-Channel Frame:	Aluminum (incl. attachment hardware)

Specifications

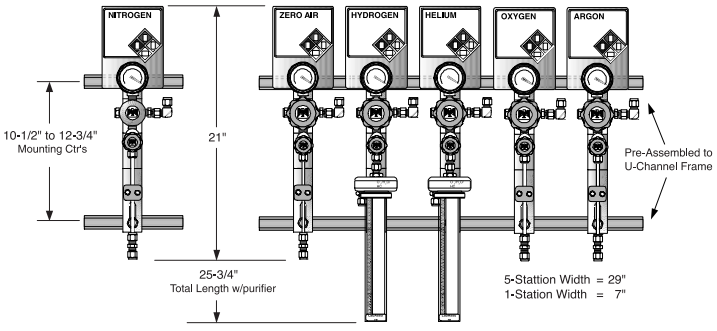
Typical Gases Delivered:

Acetylene	Helium	Nitrous Oxide
Air	Hydrogen	Oxygen
ZERO Air	Methane	P5 – 5% Ar / CH_4
Argon	Nitrogen	P10 – 10% Ar / CH_4
		Vacuum

Operating Pressures (3 Ranges):	0-30 psig 0-100 psig 0-200 psig*
Optional Features:	3/8" Compression Fitting – Brass or Stainless Steel 1/2" Compression Fitting – Brass or Stainless Steel

** 0-150 psig max with purifier.*

Standard GasTrak™ System Dimensions & Assembly



The U-Channel frame makes installation convenient and cost effective

GasTrak™ Delivery/Control Systems *(continued)*

Ordering Information

How to Select and Order a GasTrak™ Delivery System:

An individual GasTrak™ Station for a single gas or a complete GasTrak™ System (consisiting of up to a maximum of five GasTrak™ Stations) is selected and constructed from the designated "Order Selection Code" letters and numbers assigned to each component listed in Sections '1' thru '6' below. Simply select the appropriate Order Selection Code letters or numbers from each Component Section and assemble them according to the **GasTrak™ Matrix No. Format** on the next page (refer to examples). With the selections offered under Sections '5' and '6', if you do not wish to include an "option", simply do not add any letters or numbers. A complete GasTrak™ Matrix No. MUST be assembled for each gas requiring a GasTrak™ Station. **If the U-Channel option is selected, each GasTrak™ Station, or combination of Stations in a GasTrak™ System, is shipped pre-assembled and mounted to the U-Channel ready for installation.**

Order Selection Codes

Section 1:
Optional U-Channel Frame Selection

UNI-Strut Mounted Frame	Include (Y / N)	Order Code
Add U-Channel Frame	YES	P
Omit U-Channel Frame	NO	(OMIT)

Section 2:
Regulator & Purifier Component Selections

(Select) Regulator / Purifier	Material	Order Code
Non-Regulated w/o Purifier	Brass	Q
Non-Regulated w/Purifier	Brass	W
Regulated w/o Purifier	Brass	D
Regulated w/Purifier	Brass	K
Non-Regulated w/o Purifier	Stainless Steel	N
Non-Regulated w/Purifier	Stainless Steel	T
Regulated w/o Purifier	Stainless Steel	A
Regulated w/Purifier	Stainless Steel	G

Section 3:
Pressure Range Selection

Pressure Range	Order Code
0-30 psig	1
0-100 psig	2
0-200 psig*	3

** 0-150 psig max. with purifier*

Section 4:
Gas Type Selection

Type Gas	Order Code
Acetylene	A
Air	B
Zero Air	C
Argon	D
Carbon Dioxide	E
Helium	G
Hydrogen	J
Methane	K
Nitrogen	M
Nitrous Oxide	N
Oxygen	P
P5 – 5% CH_4 / Ar	R
P10 – 10% CH_4 / Ar	S
Vacuum	Y

Section 5:
Optional Fitting Selection

Optional Feature	Order Code
3/8" Compression Fitting*	1
1/2" Compression Fitting*	2

** Material will match component material from Section 2*

Section 6:
Optional Purifier Selection

Purifier Type	Order Code
Moisture (H_2O) Purifier	M
Oxygen (O_2) Purifier	O
Hydrocarbon (HC) Purifier	H
Triple (H_2O + O_2 + HC) Purifier	T
Combi (H_2O + HC) Purifier	C

GasTrak™ Delivery/Control Systems *(continued)*

Ordering Information

How to Configure the "GasTrak™ Matrix No." for EACH Gas -- A GasTrak™ Station (for One Gas) or a Complete GasTrak™ System (for Multiple Gases)

For component identification purposes, each **GasTrak™ Matrix No.** must begin with the code letter "P" if the optional "UNI-Strut" Frame is selected to be an integral component of either a single GasTrak™ Station or a complete GasTrak™ System. If the "UNI-Strut" Frame component is not selected as an option – do not include the code letter "P" as a part of the GasTrak™ Matrix No. If MULTIPLE GasTrak™ Stations are ordered and are intended to be a part of a complete GasTrak™ System AND the U-Channel frame option is desired as a part of the assembly – simply ADD only one "P" in front of the first GasTrak™ Matrix No. and combine the remaining GasTrak™ Matrix Nos. for each gas into a single GasTrak™ Matrix No. (it is not necessary to place a "P" in front of each GasTrak™ Matrix No. for each individual gas when ordering a complete System mounted to the U-Channel frame). The remaining Order Code numbers and letters are then added sequentially from each component Section to assemble a complete GasTrak™ Matrix No. Simply follow the '7' Steps outlined below to configure each GasTrak™ Station or System.

Follow the '7' Steps Below to Completely Configure and Order a Single GasTrak™ Station (for One Gas) or GasTrak™ System (for Multiple Gases)

STEP #1: Determine if the GasTrak™ Station(s) or System will include the "U-Channel frame" option and assign the Order Code letter "P" as shown in Section 1 to begin the GasTrak™ Matrix No. if required. If the U-Channel frame is not selected — omit the letter"P" from the GasTrak™ Matrix No.

STEP #2: Select a specific control feature for each GasTrak™ station from Section 2. Enter the appropriate code letter into the GasTrak™ Matrix No. as indicated.

STEP #3: Select the appropriate delivery pressure gauge range for each GasTrak™ station from Section 3. Enter the corresponding code number into the GasTrak™ Matrix No. as indicated.

STEP #4: Select a gas to be used with the GasTrak™ station from Section 4. Enter the code letter into the GasTrak™ Matrix No. as indicated. If a particular gas is not listed – please consult with a Matheson Tri-Gas customer service representative (@ 215-648-4000) to confirm compatibility with a specific gas.

STEP #5: If desired -- Select an optional fitting to customize your manifold system from Section 5.

STEP #6: If desired -- Select an optional purifier from Section 6.

NOTE (STEP #5 and #6): If multiple options are selected, enter the corresponding code number for each option next to one another in the sequential order indicated. If no optional features are selected – do not include/add any code numbers to the GasTrak™ Matrix No.

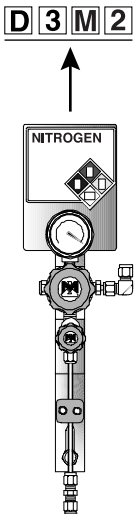
STEP #7: Provide the completed GasTrak™ Matrix No. to a Matheson Tri-Gas customer service or local sales representative to order the GasTrak™ Station(s) or System selected.

Reference Example for Ordering a GasTrak™ Station for "One" Gas

The example shown here illustrates a typical GasTrak™ Station that is used to control and deliver one gas: Nitrogen.

This GasTrak™ Station Matrix No. was configured using Sections 1-6 of the Order Selection Codes from the previous page.

- *No U-Channel Frame*
- **D** = *Brass Regulator (w/o Purifier)*
- **3** = *0-200 psig Pressure Range*
- **M** = *Nitrogen*
- **2** = *1/2" Brass Tube Fittings*



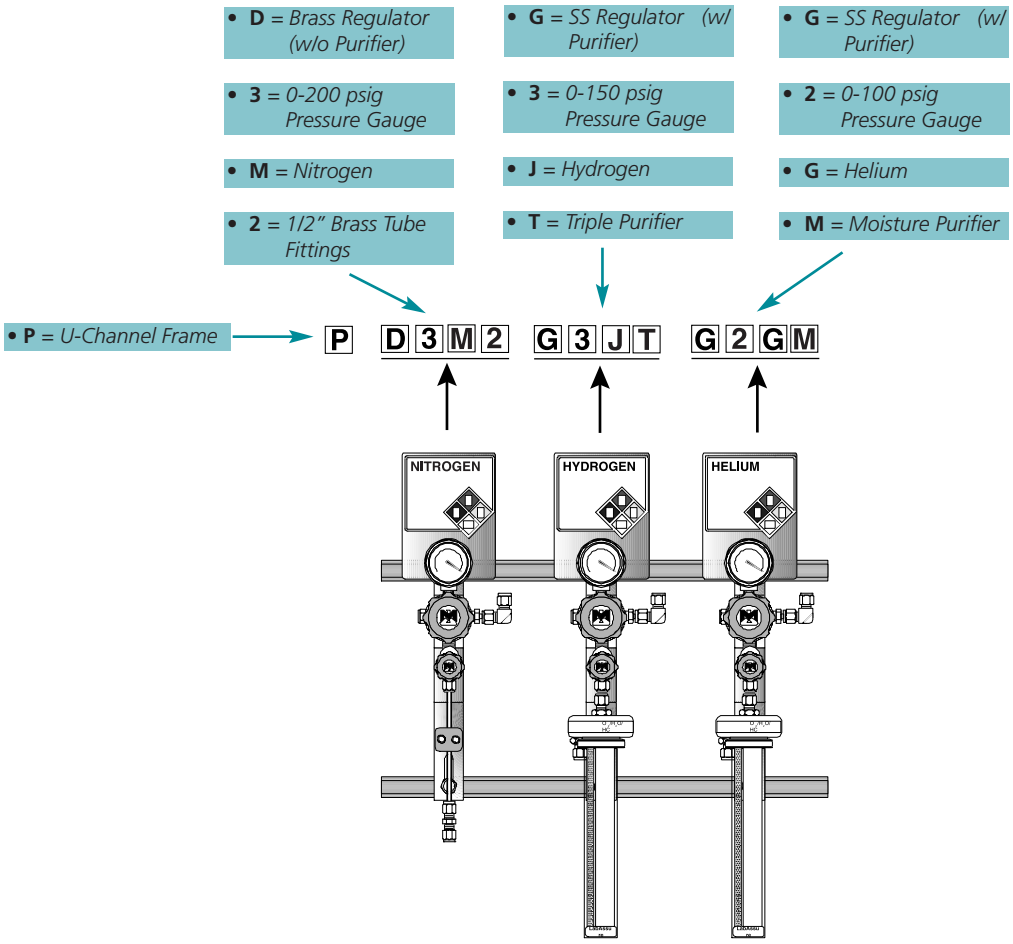
EACH gas must have a GasTrak™ Matrix No.

GasTrak™ Delivery/Control Systems *(continued)*

Reference Example for Ordering a GasTrak™ System for "Multiple" Gases

The example shown below illustrates a typical GasTrak™ System that is used to control and deliver 3 different gases: Nitrogen, Hydrogen and Helium.

This GasTrak™ System Matrix No. was configured using Sections 1 - 6 of the Order Selection Codes.



EACH gas must have a GasTrak™ Matrix No.