

The Simplex Control section employs a single regulator and is practical when downtime (due to cylinder replacement or maintenance) can be tolerated. The Simplex Control sections come in two designs: **Simplex Left** and **Simplex Center**.

Included with these manifolds are: regulators, control sections, header sections with shutoff valves, stands (floor-mount only) and waterseal flash arrestor, where required.

Specifications

Inlet Pressure0-3,000 PSIG

Outlet Pressure10-250 PSIG

Connections

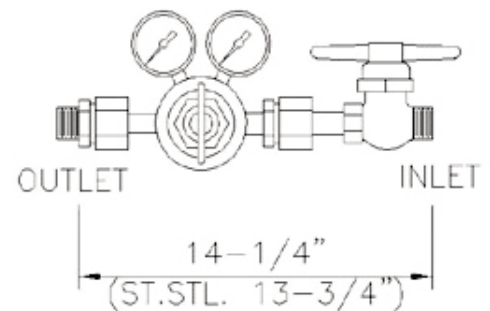
Inlet1"-1 1/2" MNPS

Outlet1/2" MNPT Threaded

Materials of ConstructionRed Brass, 316 Stainless Steel or Painted Steel*

DimensionsSee Ordering Information for Full System Lengths

* Painted steel manifolds have painted steel pipe and fittings with brass regulators and valves.



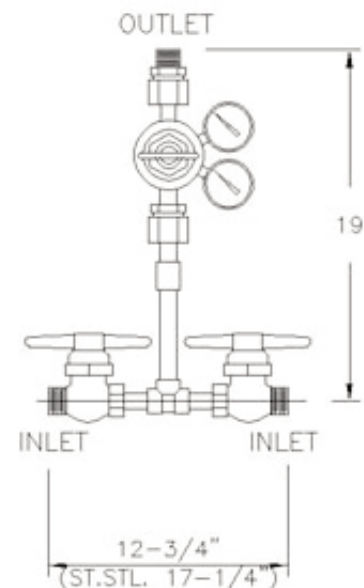
SIMPLEX LEFT

Features

- Wall or Floor Mount Designs
- Modular Construction for Easy Expansion
- Extra Heavy Connections for Rugged Service (Brass)
- Stainless Steel with Argon Purge Welded Construction for Maximum Product Purity
- Pigtails Included (with stainless manifolds only)

Optional Equipment

- Alarm
- Safety Relief Valves
- Pressure Switches
- Flexible or Rigid Pigtails
- Wet or Dry Flash High Pressure Arrestor
- Purge and Vent

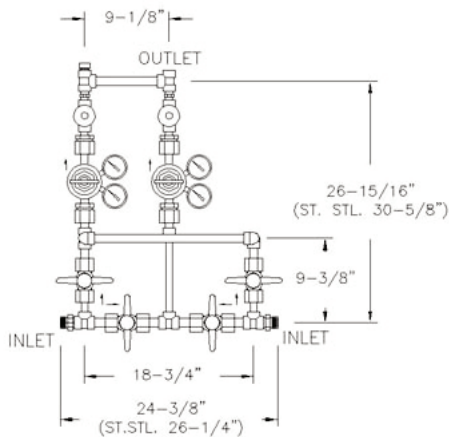
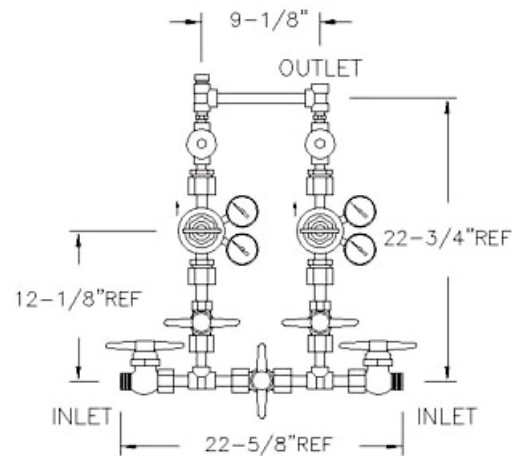


SIMPLEX CENTER

Duomatic Control sections employ dual regulators and header section shutoff valves for uninterrupted gas service from two banks of cylinders, which can be used alternately. Duomatic Control sections are available for common gases in two models: **Semi-Automatic Duomatic** and **Automatic Duomatic**.

The Semi-Automatic Duomatic Control section (right) provides uninterrupted service during cylinder changeout. It allows users to replace a cylinder on one side while the opposite side acts as the service bank. Also, one regulator can be removed for maintenance without interrupting gas flow.

The Semi-Automatic Duomatic Control section has a center isolation valve permitting gas from either bank of cylinders to be discharged through either regulator. By closing the isolation valve in the center section, users can designate either bank of cylinders as the service side, allowing the regulators to automatically switch over to the reserve cylinder bank when the service side is depleted. After the empty bank of cylinders is replaced, users must reverse the pressure settings on the regulators to maintain the automatic switchover feature. Wall and floor mount models are available.



Specifications

Inlet Pressure	0-3,000 PSIG
Outlet Pressure	0-250 PSIG
Inlet Connections	1\"-1 1/2\" MNPS
Outlet Connections . . .	Two 1/2\" FNPT Threaded, to Accommodate Safety Relief Valve or Pressure Switch Accessory
Materials of Construction	Red Brass, 316 Stainless Steel or Painted Steel*
Dimensions	See Ordering Information for Full System Lengths

* Painted steel manifolds have painted steel pipe and fittings with brass regulators and valves.

Automatic Duomatic

The Automatic Duomatic Control section (above) has all the advantages of the Semi-Automatic Duomatic, plus its automatic switchover feature eliminates the need for reversing the regulator settings when one cylinder bank is empty. Gas flow is redirected to the service and reserve side regulators by opening and closing master shut-off valves. Easy-to-follow directions are provided with both wall and floor mount versions.

Product ordering charts follow this page. Please use them to ensure accurate ordering.

1. Choose the **Model** that best fits your needs.
2. Next, choose the **Gas Service** that matches your application. Note its corresponding CGA number (below).
3. Locate the **Ordering Chart** that corresponds with the **Model** and **Gas Service** selected (Chart notes appropriate material of construction) .
4. Next, choose the **Mounting System** required.
5. Finally, choose the **Number of Cylinders** required. Locate the corresponding cell on the charts that follow.

A breakdown of how our part numbers are configured is shown below for your reference.

Format: 241 - 43 - 540 - 6				
Material of Construction	Model	Mounting System	CGA Number = Gas Service	# of Cylinders+
271 = Brass	2 = Semi-Automatic Duomatic	2 = Wall Mount	320 = Carbon Dioxide	2
241 = Stainless	3 = Automatic Duomatic	3 = Floor Mount	330 = Corrosive Gases	3
251 = Painted Steel	4 = Simplex Left		346 = Air	4
	5 = Simplex Center		350 = Hydrogen	6
			510 = MAPP™, Apachi®, Acetylene, Propylene	8
			510P = Propane	10
			540 = Oxygen	12
			580 = Helium, Argon, Nitrogen	14
			590 = Nitrogen - Oil Pumped	16
			660 = Corrosive Gases	

Ordering Example

241-43-540-6 =

Stainless Steel Simplex Left Manifold, Floor Mounted for Oxygen Service to 6 Cylinders

+ **Wall Mounted Manifolds require cylinders to be added/configured in multiples of 2.**

Floor Mounted Manifolds require an equal number of cylinders on each side of the mounting header.

A Stationary Manifold System consists of two main parts: the Control Section and the Header Section. A complete system consists of piping, master valves, regulators with relief valves, header valves and pigtails.

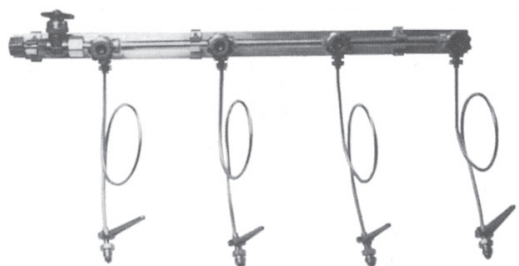
Acme can provide a number of standard and custom variations to ensure users receive the best system to meet their needs. The standard cylinder header section (floor or wall-mounted unit) is readily expandable to meet changing shop demands. Simply insert additional header sections between the original header section and control section or at the end of the header section.

All control sections have threaded outlets for connection to the plant pipeline. **There are two manifold mounting methods: directly to a wall or away from the wall on supporting floor stands. Customers can determine the best method by surveying the proposed manifold location and space requirements.**

Wall Mounting

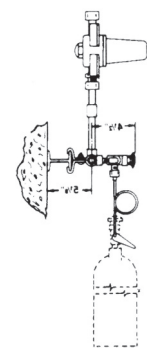
Wall mounting places all cylinders in a single row on one side of the manifold. This method requires less access area for changing cylinders.

Typical 4-Cylinder Wall-Mounted Header Section (left)



The wall-mount header consists of header valves, piping, and pigtails mounted on an aluminum I-beam and adapted for easy mounting directly to a wall. Header valve spacing is:

- 10¹/₂" center to center for most compressed gases
- 12" center to center for acetylene
- 16¹/₂" center to center for propane, Apachi™, MAPP® and propylene

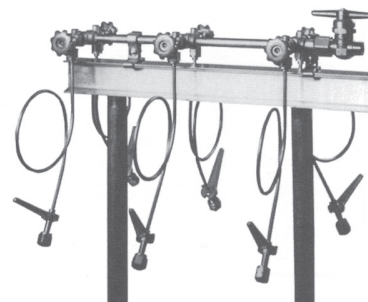
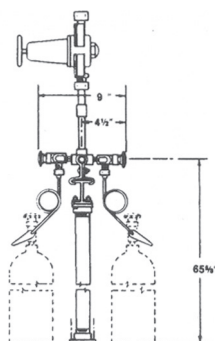


Floor Mounting

Floor mounting places cylinders on both sides of the manifold. This method requires ample access area on both sides of the manifold, but reduces the overall manifold length.

Typical 6-Cylinder Floor-Mounted Header Section (right)

Header sections are supplied with pigtails and shutoff valves and are mounted on 3-inch aluminum I-beams for convenient installation. Floor-mount manifolds come with floor stand assemblies of 1¹/₂" x 60" pipe with mounting flanges.



Ordering Information: Simplex Left

5

Complete the **Part Number** for the system of choice by replacing "XXX" with the CGA number for the required gas service.

Brass: H₂, He, N₂, Ar, O₂, CO₂, Air

Number of Cylinders	Wall Mount Part Number	Length	Floor Mount Part Number	Length
2	271-42XXX2	29 ⁵ / ₈ "	N/A	N/A
3	271-42XXX3	40 ¹ / ₈ "	N/A	N/A
4	271-42XXX4	50 ⁵ / ₈ "	271-43XXX4	29 ⁵ / ₈ "
5	271-42XXX5	61 ¹ / ₈ "	N/A	N/A
6	271-42XXX6	71 ¹ / ₈ "	271-43XXX6	40 ¹ / ₈ "
8	271-42XXX8	92 ⁵ / ₈ "	271-43XXX8	50 ⁵ / ₈ "
10	271-42XXX10	113 ⁵ / ₈ "	271-43XXX10	61 ¹ / ₈ "
12	271-42XXX12	N/A	271-43XXX12	71 ⁵ / ₈ "

Stainless Steel: All Gases

Number of Cylinders	Wall Mount Part Number	Length	Floor Mount Part Number	Length
2	241-42XXX2	29 ⁵ / ₈ "	N/A	N/A
3	241-42XXX3	40 ¹ / ₈ "	N/A	N/A
4	241-42XXX4	50 ⁵ / ₈ "	241-43-XXX4	29 ⁵ / ₈ "
5	241-42XXX5	61 ¹ / ₈ "	N/A	N/A
6	241-42XXX6	71 ⁵ / ₈ "	241-43XXX6	40 ⁵ / ₈ "
8	241-42XXX8	92 ⁵ / ₈ "	241-43XXX8	50 ⁵ / ₈ "
10	241-42XXX10	113 ⁵ / ₈ "	241-43XXX10	61 ¹ / ₈ "
12	241-42XXX12	134 ⁵ / ₈ "	241-43XXX12	71 ⁵ / ₈ "
14	241-42XXX14	155 ⁵ / ₈ "	N/A	N/A
16	241-42XXX16	176 ⁵ / ₈ "	241-43XXX16	92 ⁵ / ₈ "

Painted Steel: Apachi™, Propane, Mapp®, Acetylene, Propylene

Number of Cylinders	Wall Mount Part Number	Length	Length Acetylene	Floor Mount Part Number	Length	Length Acetylene
2	251-42-XXX2	37 ⁵ / ₈ "	33 ⁵ / ₈ "	N/A	N/A	N/A
3	251-42XXX3	54 ¹ / ₈ "	46 ¹ / ₈ "	N/A	N/A	N/A
4	251-42XXX4	70 ¹ / ₈ "	58 ⁵ / ₈ "	251-43XXX4	37 ⁵ / ₈ "	33 ⁵ / ₈ "
5	251-42XXX5	87 ¹ / ₈ "	71 ¹ / ₈ "	N/A	N/A	N/A
6	251-42XXX6	103 ⁵ / ₈ "	83 ⁵ / ₈ "	251-43XXX6	54 ¹ / ₈ "	46 ¹ / ₈ "
8	251-42XXX8	136 ⁵ / ₈ "	108 ⁵ / ₈ "	251-43XXX8	70 ⁵ / ₈ "	58 ⁵ / ₈ "
10	251-42XXX10	169 ⁵ / ₈ "	133 ⁵ / ₈ "	251-43XXX10	87 ¹ / ₈ "	71 ¹ / ₈ "

Ordering Information: Simplex Center

6

Complete the **Part Number** for the system of choice by replacing "XXX" with the CGA number for the required gas service.

Brass: H₂, He, N₂, Ar, O₂, CO₂, Air

Number of Cylinders	Wall Mount Part Number	Length	Floor Mount Part Number	Length
4	271-52XXX4	43 ¹ / ₂ "	271-53XXX4	22 ¹ / ₂ "
6	271-52XXX6	64 ¹ / ₂ "	N/A	N/A
8	271-52XXX8	85 ¹ / ₂ "	271-53XXX8	43 ¹ / ₂ "
10	271-52XXX10	106 ¹ / ₂ "	N/A	N/A
12	N/A	N/A	271-53XXX12	64 ¹ / ₂ "

Stainless Steel: All Gases

Number of Cylinders	Wall Mount Part Number	Length	Part Number	Length
2	241-52XXX2	27"	N/A	N/A
4	241-52XXX4	48"	241-53XXX4	27"
6	241-52XXX6	69"	N/A	N/A
8	241-52XXX8	90"	241-53XXX8	48"
10	241-52XXX10	111"	N/A	N/A
12	241-52XXX12	132"	241-53XXX12	69"
14	241-52XXX14	153"	N/A	N/A
16	241-52XXX16	174"	241-53XXX-16	90"

Painted Steel: Apachi™, Propane, MAPP®, Acetylene, Propylene

Number of Cylinders	Wall Mount Part Number	Length	Length Acetylene	Floor Mount Part Number	Length	Acetylene
4	251-52XXX4	62 ³ / ₈ "	54 ³ / ₈ "	251-53XXX4	29 ³ / ₈ "	29 ³ / ₈ "
6	251-52XXX6	95 ³ / ₈ "	79 ³ / ₈ "	N/A	N/A	N/A
8	251-52XXX8	128 ³ / ₈ "	104 ³ / ₈ "	251-53XXX8	62 ³ / ₈ "	54 ³ / ₈ "
10	251-52XXX10	161 ³ / ₈ "	129 ³ / ₈ "	N/A	N/A	N/A

Ordering Information: Semi-Automatic, Automatic Duomatics

6

Complete the **Part Number** for the system of choice by replacing "XXX" with the CGA number for the required gas service.

Semi-Automatic Duomatic- Brass: H₂, He, N₂, Ar, O₂, CO₂, Air

Number of Cylinders	Wall Mount Part Number	Length	Floor Mount Part Number	Length
4	271-22XXX4	53 ³ / ₈ "	271-23XXX4	32 ³ / ₈ "
6	271-22XXX6	74 ³ / ₈ "	N/A	N/A
8	271-22XXX8	95 ³ / ₈ "	271-23XXX8	53 ³ / ₈ "
10	271-22XXX10	116 ³ / ₈ "	N/A	N/A
12	271-22XXX12	137 ³ / ₈ "	271-23XXX12	74 ³ / ₈ "
14	271-22XXX14	158 ³ / ₈ "	N/A	N/A
16	271-22XXX16	179 ³ / ₈ "	271-23XXX16	95 ³ / ₈ "

Semi-Automatic Duomatic- Painted Steel: Apachi™, Propane, MAPP®, Acetylene, Propylene

Number of Cylinders	Wall Mount Part Number	Length	Length Acetylene	Floor Mount Part Number	Length	Length Acetylene
4	251-22XXX4	75 ¹ / ₈ "	67 ¹ / ₈ "	251-23XXX4	42 ¹ / ₈ "	42 ¹ / ₈ "
6	251-22XXX6	108 ¹ / ₈ "	92 ¹ / ₈ "	N/A	N/A	N/A
8	251-22XXX8	141 ¹ / ₈ "	117 ¹ / ₈ "	251-23XXX8	75 ¹ / ₈ "	67 ¹ / ₈ "
10	251-22XXX10	174 ¹ / ₈ "	142 ¹ / ₈ "	N/A	N/A	N/A

Semi-Automatic Duomatic- Brass: H₂, He, N₂, Ar, O₂, CO₂, Air

Number of Cylinders	Wall Mount Part Number	Length	Floor Mount Part Number	Length
4	271-32XXX4	55 ¹ / ₈ "	271-33XXX4	34 ¹ / ₈ "
6	271-32XXX6	76 ¹ / ₈ "	N/A	N/A
8	271-32-XXX8	97 ¹ / ₈ "	271-33XXX8	55 ¹ / ₈ "
10	271-32XXX10	118 ¹ / ₈ "	N/A	N/A
12	271-32XXX12	139 ¹ / ₈ "	271-33XXX12	76 ¹ / ₈ "
14	271-32XXX14	160 ¹ / ₈ "	N/A	N/A
16	271-32XXX16	181 ¹ / ₈ "	271-33XXX16	97 ¹ / ₈ "

Automatic Duomatic- Stainless Steel: All Gases

Number of Cylinders	Wall Mount Part Number	Length	Floor Mount Part Number	Length
2	241-32XXX2	36"	N/A	N/A
4	241-32XXX4	57"	241-33XXX4	36"
6	241-32XXX6	78"	N/A	N/A
8	241-32XXX8	99"	241-33XXX8	57"
10	241-32XXX10	120"	N/A	N/A
12	241-32XXX12	141"	241-33XXX12	78"
14	241-32XXX14	162"	N/A	N/A
16	241-32XXX16	183"	241-33XXX16	99"