

# Section 1

## Bar Manifolds

RA 09 907/07.04

### The Drive & Control Company

#### Bar Manifold Features

- Sizes 6 to 22
- Aluminum and ductile iron
- Side or bottom ported
- SAE, NPT, and BSPP porting, flanged ports for larger sizes
- Includes mounting kit
- Other accessories available

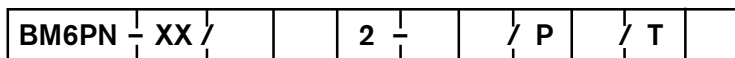
Note: Bar manifolds may be purchased as complete assemblies upon request



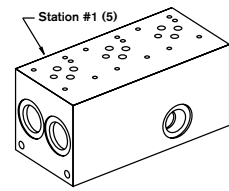
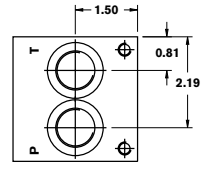
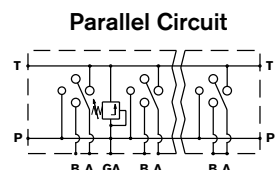
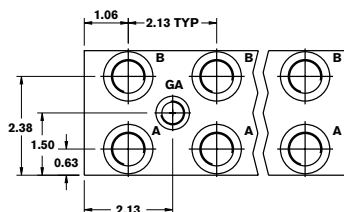
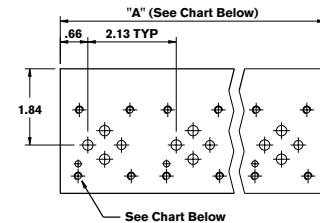
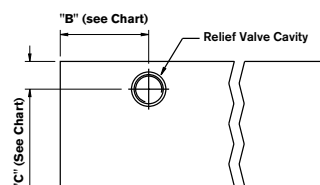
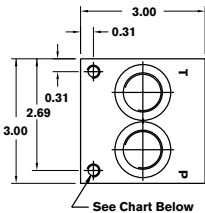
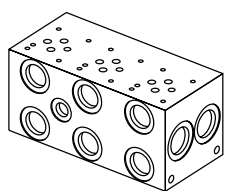
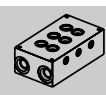
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# Bar Manifold D03 (Size 6) Parallel Circuit Normal Flow



|  |         |  |  |  |  |  |  |  |  |   |
|--|---------|--|--|--|--|--|--|--|--|---|
| <b>Revision</b>                              | = XX    |  |  |  |  |  |  |  |  | Isolations between stations <sup>5)</sup>         |
| <b>Number of Station</b>                     | = 01-16 |  |  |  |  |  |  |  |  | <b>Omit =</b> No options                          |
| <b>Material</b>                              |         |  |  |  |  |  |  |  |  | <b>T =</b> Tank Isolation <sup>4)</sup>           |
| Aluminum 6061-T6, 3000 psi                   | = A     |  |  |  |  |  |  |  |  | Isolations between stations <sup>5)</sup>         |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     |  |  |  |  |  |  |  |  | <b>Omit =</b> No options                          |
| <b>Valve Spacing 2.13"</b>                   | = 2     |  |  |  |  |  |  |  |  | <b>P =</b> Pressure Isolation <sup>4)</sup>       |
| SAE Threaded Ports                           | = 12    |  |  |  |  |  |  |  |  | <b>Omit =</b> No options                          |
| NPT Threaded Ports                           | = 05    |  |  |  |  |  |  |  |  | <b>RCI =</b> *Relief Cavity Industry Common 10-2  |
| BSPP Threaded Ports                          | = 01    |  |  |  |  |  |  |  |  | <b>RCS =</b> *Relief Cavity Sun T-10A (P in nose) |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

|       | P & T Ports   | A & B Ports  | GA Port       | Manifold (Mtg.)    | Valve (Mtg.)     |
|-------|---------------|--------------|---------------|--------------------|------------------|
| ...12 | 7/8-14 SAE-10 | 3/4-16 SAE-8 | 9/16-18 SAE-6 | 5/16-18 x 0.45 DP. | 10-24 x 0.50 DP. |
| ...05 | 1/2" NPT      | 3/8" NPT     | 1/4" NPT      | 5/16-18 x 0.45 DP. | 10-24 x 0.50 DP. |
| ...01 | 1/2" BSPP     | 3/8" BSPP    | 1/4" BSPP     | M8 x 0.45 DP.      | M5 x 0.50 DP.    |

| Number of Stations      | 01 <sup>2</sup>   | 02    | 03    | 04    | 05    | 06    | 07    | 08    | 09 - 16         |
|-------------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| Dim. "A"                | 2.13 <sup>3</sup> | 4.25  | 6.38  | 8.50  | 10.63 | 12.75 | 14.88 | 17.00 |                 |
| Dim. "B" RCI            | 1.688             | 2.125 | 2.125 | 2.125 | 2.125 | 2.125 | 2.125 | 2.125 |                 |
| Dim. "C" RCI            | 0.906             | 0.906 | 0.906 | 0.906 | 0.906 | 0.906 | 0.906 | 0.906 |                 |
| Dim. "B" RCS            | 1.906             | 2.125 | 2.125 | 2.125 | 2.125 | 2.125 | 2.125 | 2.125 | Consult Factory |
| Dim. "C" RCS            | 1.062             | 1.062 | 1.062 | 1.062 | 1.062 | 1.062 | 1.062 | 1.062 |                 |
| Approx. Weight AL (lbs) | 3                 | 4     | 6     | 8     | 9     | 11    | 13    | 15    |                 |
| Approx. Weight DI (lbs) | 7                 | 10    | 15    | 20    | 25    | 30    | 35    | 40    |                 |

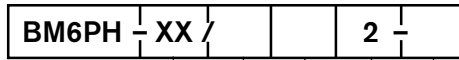
1) Blackening 2) Gauge port not included 3) Dim. "A" with relief cavity is 3.00 All dimensions in inches

4) Rexroth isolation options allow for a manifold to have two independent pressure and/or tank ports. Isolations are drilled rather than plugged to ensure a leakproof and failproof isolation.

5) Position of the isolation within the manifold are based on Station One to the left with A and B ports facing away.

# Bar Manifold

## D03 (Size 6) Parallel Circuit High Flow



Revision

= XX

Number of Station

= 01-10

Material

Aluminum 6061-T6, 3000 psi

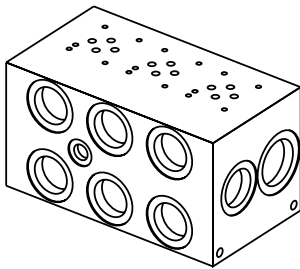
= A

Ductile Iron<sup>1</sup> 65-45-12, 5000 psi

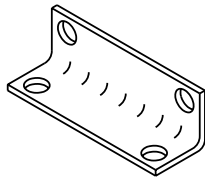
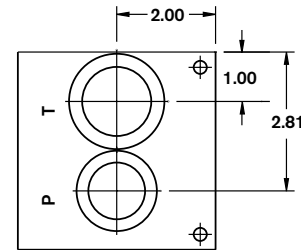
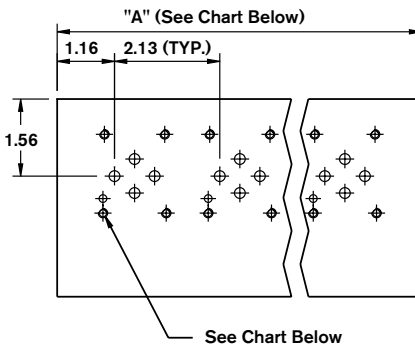
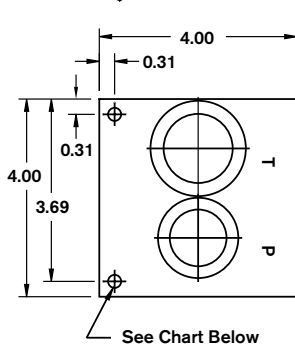
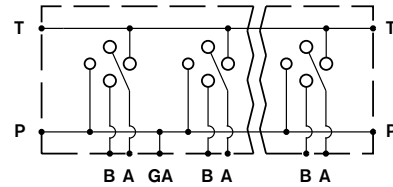
= D

12 =  
01 =  
2 =

**Ports**  
SAE Threaded Ports  
BSPP Threaded Ports  
**Valve Spacing 2.13"**

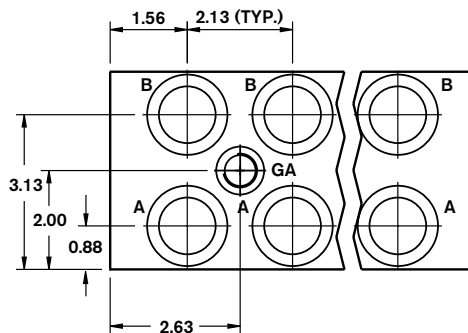


Parallel Circuit



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.



| T Port | A, B, & P Ports  | GA Port          | Manifold (Mtg.) | Valve (Mtg.)       |                  |
|--------|------------------|------------------|-----------------|--------------------|------------------|
| ...12  | 1-5/16-12 SAE-16 | 1-1/16-12 SAE-12 | 9/16-18 SAE-6   | 5/16-18 x 0.45 DP. | 10-24 x 0.50 DP. |
| ...01  | 1" BSPP          | 3/4" BSPP        | 1/4" BSPP       | M8 x 0.45 DP.      | M5 x 0.50 DP.    |

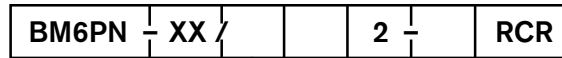
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|-------------------------|-----------------|------|------|------|-------|-------|-------|-------|-----------------|
| Dim. "A"                | 3.13            | 5.25 | 7.38 | 9.50 | 11.63 | 13.75 | 15.88 | 18.00 | Consult Factory |
| Approx. Weight AL (lbs) | 5               | 8    | 12   | 15   | 18    | 22    | 25    | 28    |                 |
| Approx. Weight DI (lbs) | 13              | 18   | 31   | 40   | 48    | 57    | 66    | 75    |                 |

1) Blackening 2) Gauge port not included

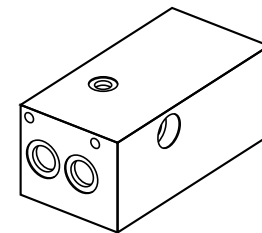
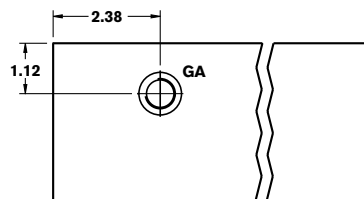
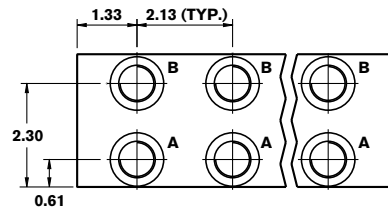
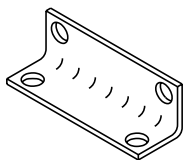
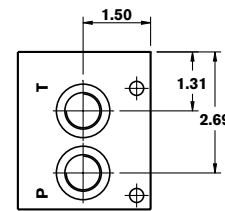
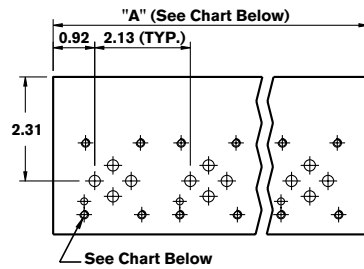
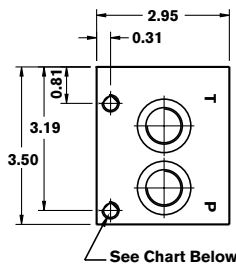
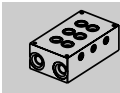
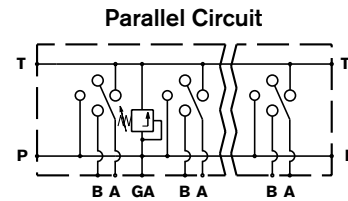
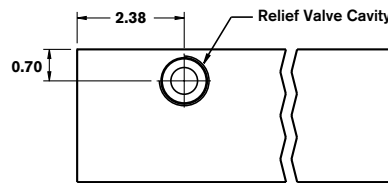
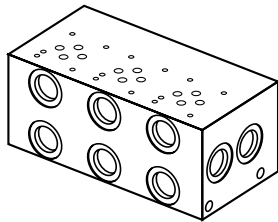
All dimensions in inches

# Bar Manifold

## D03 (Size 6) Parallel Circuit Normal Flow with DBDS Cavity



|  |         |              |                             |
|--|---------|--------------|-----------------------------|
| <b>Revision</b>                              | = XX    | <b>RCR =</b> | Relief Cavity Rexroth DBDS6 |
| <b>Number of Station</b>                     | = 01-08 | <b>12 =</b>  | SAE Threaded Ports          |
| <b>Material</b>                              |         | <b>01 =</b>  | BSPB Threaded Ports         |
| Aluminum 6061-T6, 3000 psi                   | = A     |              |                             |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     |              |                             |
| <b>Valve Spacing 2.13"</b>                   | = 2     |              |                             |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

|       | P & T Port    | A & B Ports  | GA Port       | Manifold (Mtg.)    | Valve (Mtg.)     |
|-------|---------------|--------------|---------------|--------------------|------------------|
| ...12 | 7/8-14 SAE-10 | 3/4-16 SAE-8 | 9/16-18 SAE-6 | 5/16-18 x 0.60 DP. | 10-24 x 0.45 DP. |
| ...01 | 1/2" BSPB     | 3/8" BSPB    | 1/4" BSPB     | M8 x 0.60 DP.      | M5 x 0.45 DP.    |

| Number of Stations      | 01   | 02   | 03   | 04   | 05    | 06    | 07    | 08    |
|-------------------------|------|------|------|------|-------|-------|-------|-------|
| Dim. "A"                | 3.95 | 4.88 | 7.00 | 9.12 | 11.25 | 13.38 | 15.50 | 17.63 |
| Approx. Weight AL (lbs) | 4    | 5    | 7    | 9    | 11    | 14    | 16    | 18    |
| Approx. Weight DI (lbs) | 11   | 13   | 19   | 24   | 30    | 36    | 42    | 48    |

1) Blackening

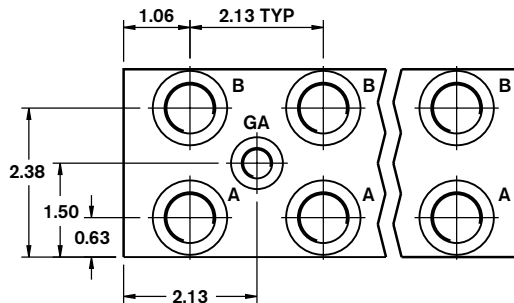
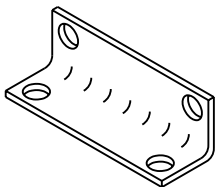
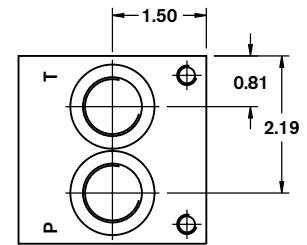
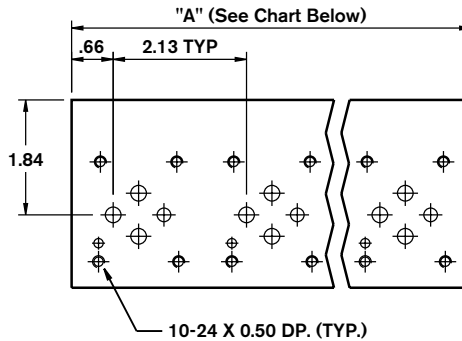
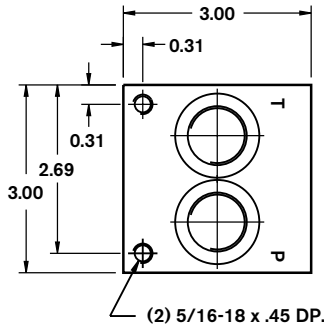
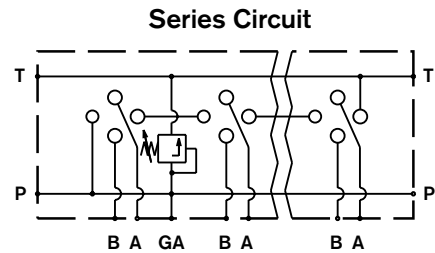
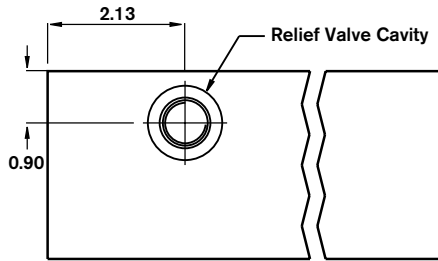
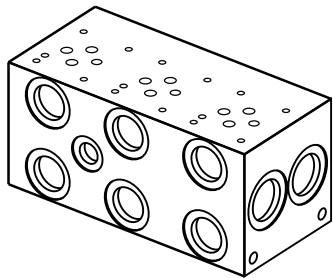
All dimensions in inches

# Bar Manifold D03 (Size 6) Series Circuit Normal Flow



|                     |            |
|---------------------|------------|
| Revision            | = XX       |
| Number of Station   | = 02-08    |
| Material            | = A<br>= D |
| Valve Spacing 2.13" | = 2        |

|        |                                     |
|--------|-------------------------------------|
| Omit = | No Options                          |
| RCl =  | Relief Cavity Industry Common 10-2  |
| RCS =  | Relief Cavity Sun T-10A (P in nose) |
|        | SAE Threaded Ports                  |
|        | P&T: 7/8-14 SAE-10                  |
|        | A&B: 3/4-16 SAE-8                   |
|        | GA: 9/16-18 SAE-6                   |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

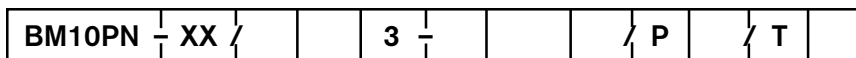
| Number of Stations      | 02   | 03   | 04   | 05    | 06    | 07    | 08    |
|-------------------------|------|------|------|-------|-------|-------|-------|
| Dim. "A"                | 4.25 | 6.38 | 8.50 | 10.63 | 12.75 | 14.88 | 17.00 |
| Approx. Weight AL (lbs) | 4    | 6    | 8    | 9     | 11    | 13    | 15    |
| Approx. Weight DI (lbs) | 10   | 15   | 20   | 25    | 30    | 35    | 40    |

1) Blackening

All dimensions in inches

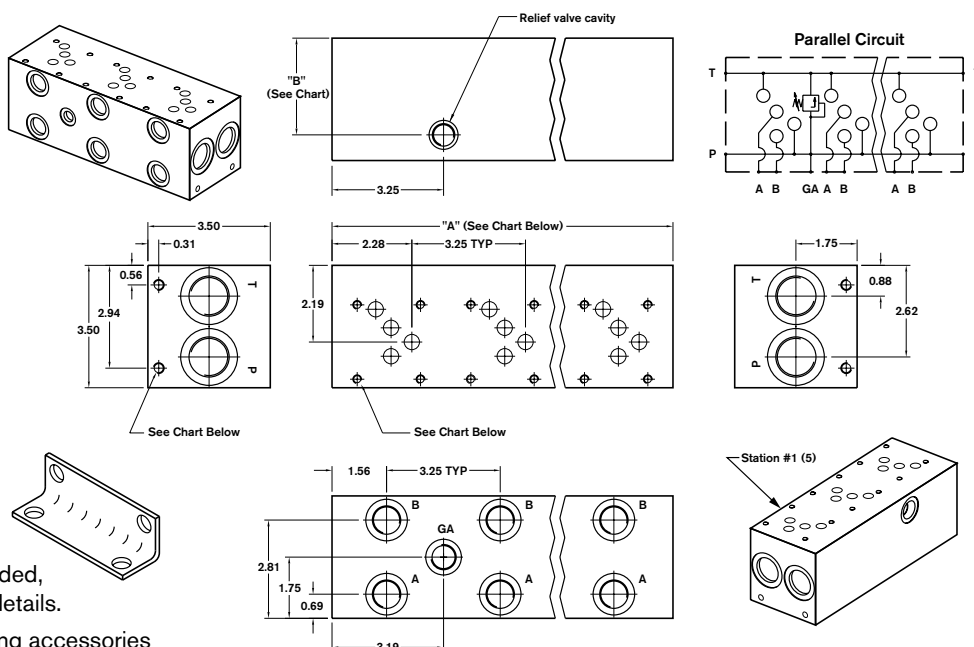
# Bar Manifold

## D05 (Size 10) Parallel Circuit Normal Flow



|  |         |
|--|---------|
| Revision                                     | = XX    |
| Number of Station                            | = 01-12 |
| Material                                     |         |
| Aluminum 6061-T6, 3000 psi                   | = A     |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     |
| Valve Spacing 3.25"                          | = 3     |
| Ports  |         |
| SAE Threaded Ports                           | = 12    |
| NPT Threaded Ports                           | = 05    |
| BSPP Threaded Ports                          | = 01    |

|        |                                    |
|--------|------------------------------------|
| Omit = | No options                         |
| T =    | Tank Isolation <sup>4)</sup>       |
| Omit = | No options                         |
| P =    | Pressure Isolation <sup>4)</sup>   |
| Omit = | No options                         |
| RCI =  | Relief Cavity Industry Common 10-2 |
| RCS =  | Relief Cavity Sun T-3A (P in nose) |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

|       | P & T Ports      | A & B Ports  | GA Port       | Manifold (Mtg.)    | Valve (Mtg.)      |
|-------|------------------|--------------|---------------|--------------------|-------------------|
| ...12 | 1-1/16-12 SAE-12 | 3/4-16 SAE-8 | 9/16-18 SAE-6 | 5/16-18 x 0.60 DP. | 1/4-20 x 0.60 DP. |
| ...05 | 3/4" NPT         | 1/2" NPT     | 1/4" NPT      | 5/16-18 x 0.60 DP. | 1/4-20 x 0.60 DP. |
| ...01 | 3/4" BSPP        | 1/2" BSPP    | 3/8" BSPP     | M8 x 0.60 DP.      | M6 x 0.60 DP.     |

| Number of Stations      | 01 <sup>2)</sup>                 | 02    | 03    | 04    | 05    | 06    | 07    | 08 - 12         |
|-------------------------|----------------------------------|-------|-------|-------|-------|-------|-------|-----------------|
| Dim. "A"                | 3.25 w/o relief<br>4.50 w/relief | 6.50  | 9.75  | 13.00 | 16.25 | 19.50 | 22.75 |                 |
| Dim. "B" RCI            | 2.688                            | 2.688 | 2.688 | 2.688 | 2.688 | 2.688 | 2.688 | Consult Factory |
| Dim. "B" RCS            | 2.406                            | 2.406 | 2.406 | 2.406 | 2.406 | 2.406 | 2.406 |                 |
| Approx. Weight AL (lbs) | 5                                | 8     | 12    | 16    | 20    | 23    | 27    |                 |
| Approx. Weight DI (lbs) | 14                               | 21    | 31    | 41    | 52    | 62    | 72    |                 |

1) Blackening      2) Gauge port not included      All dimensions in inches

4) Rexroth isolation options allow for a manifold to have two independent pressure and/or tank ports. Isolations are drilled rather than plugged to ensure a leakproof and failproof isolation.

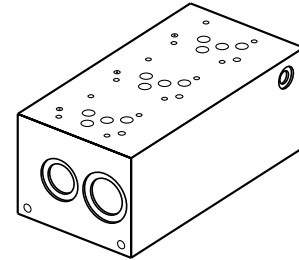
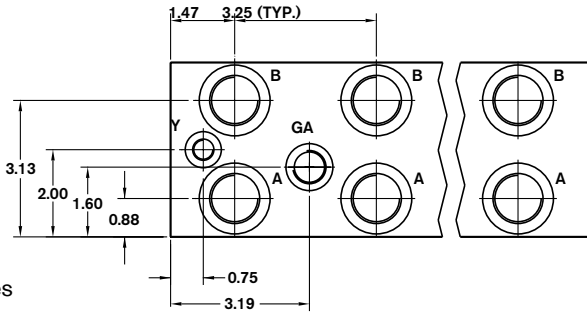
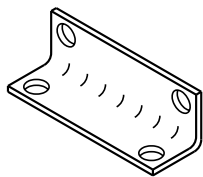
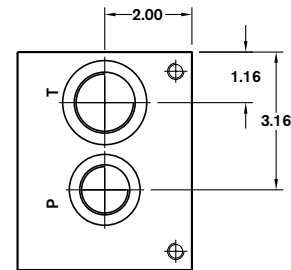
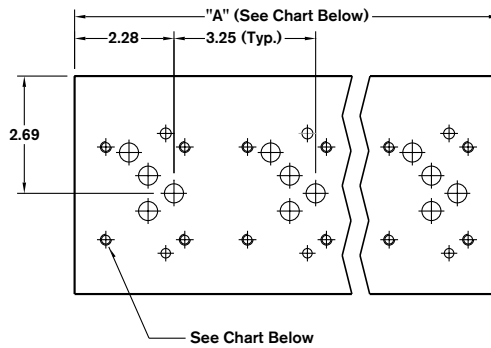
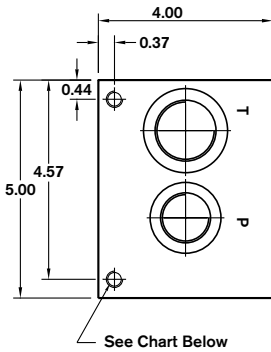
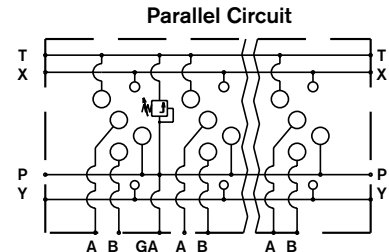
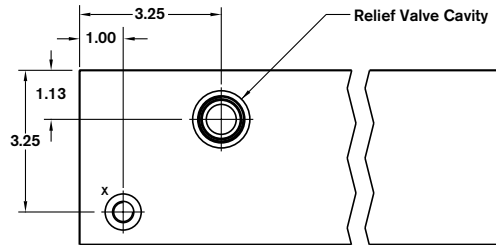
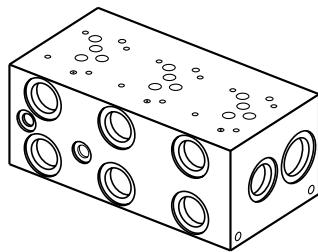
5) Position of the isolation within the manifold are based on Station One to the left with A and B ports facing away.

# Bar Manifold

## D05 (Size 10) Parallel Circuit High Flow

|        |    |  |   |  |
|--------|----|--|---|--|
| BM10PH | XX |  | 3 |  |
|--------|----|--|---|--|

|                            |  |     |     |  |               |                                    |
|----------------------------|--|-----|-----|--|---------------|------------------------------------|
| <b>Revision</b>            | = XX   |     |     |  | <b>Omit</b> = | No options                         |
| <b>Number of Station</b>   | = 01-12                                      |     |     |  | <b>RCI</b> =  | Relief Cavity Industry Common 10-2 |
| <b>Material</b>            | Aluminum 6061-T6, 3000 psi                   | = A |     |  | <b>RCS</b> =  | Relief Cavity Sun T-3A (P in nose) |
|                            | Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D |     |  |               |                                    |
| <b>Valve Spacing 3.25"</b> |  |     | = 3 |  |               | <b>Ports</b>                       |
|                            |  |     |     |  | <b>12</b> =   | SAE Threaded Ports                 |
|                            |  |     |     |  | <b>01</b> =   | BSPP Threaded Ports                |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

| T Port | P, A & B Ports   | GA, X & Y Ports  | Manifold (Mtg.) | Valve (Mtg.)      |                   |
|--------|------------------|------------------|-----------------|-------------------|-------------------|
| ...12  | 1-5/16-12 SAE-16 | 1-1/16-12 SAE-12 | 9/16-18 SAE-6   | 3/8-16 x 0.55 DP. | 1/4-20 x 0.60 DP. |
| ...01  | 1" BSPP          | 3/4" BSPP        | 1/4" BSPP       | M10 x 0.60 DP.    | M6 x 0.60 DP.     |

| Number of Stations      | 01 <sup>2</sup>   | 02   | 03   | 04    | 05    | 06    | 07    | 08 - 12         |
|-------------------------|-------------------|------|------|-------|-------|-------|-------|-----------------|
| Dim. "A"                | 3.25 <sup>3</sup> | 6.50 | 9.75 | 13.00 | 16.25 | 19.50 | 22.75 | Consult Factory |
| Approx. Weight AL (lbs) | 6                 | 13   | 19   | 25    | 32    | 38    | 45    |                 |
| Approx. Weight DI (lbs) | 17                | 34   | 51   | 68    | 85    | 101   | 118   |                 |

1) Blackening

2) Gauge port not included 3) Dim. "A" with relief cavity is 4.50"

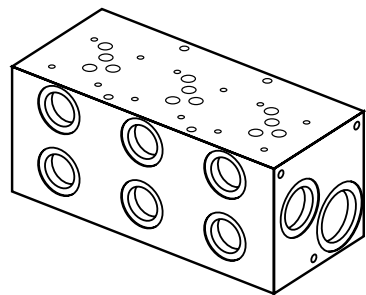
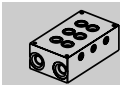
All dimensions in inches



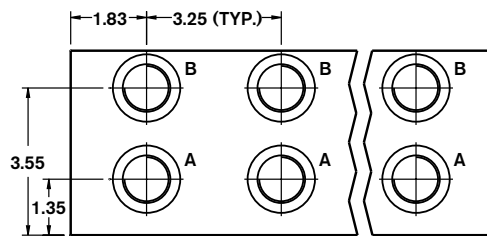
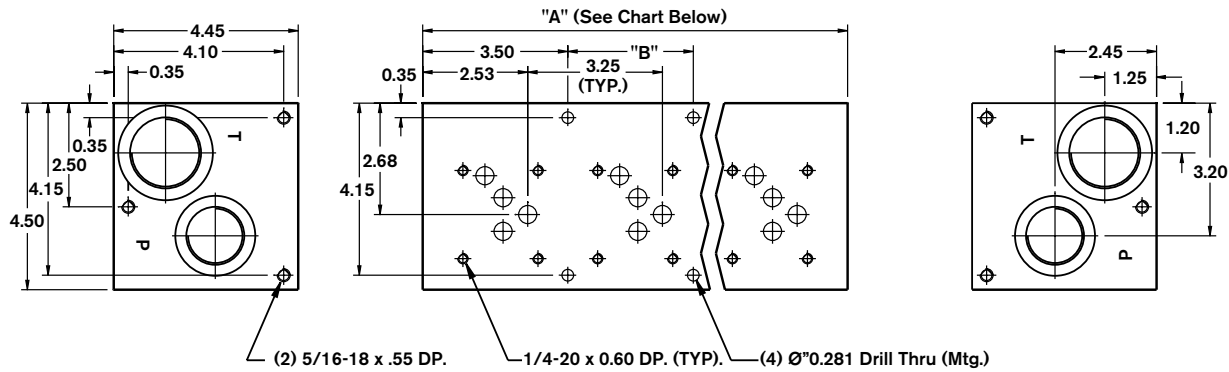
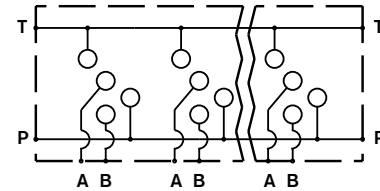
# Bar Manifold D05 (Size 10) Parallel Circuit Ultra High Flow

BM10PU - XX / D 3 -

|                                    |         |     |     |                       |
|------------------------------------|---------|-----|-----|-----------------------|
| Revision                           | = XX    | = D | = 3 | 12 =                  |
| Number of Station                  | = 02-06 |     |     |                       |
| Material                           |         |     |     | SAE Threaded Ports    |
| Ductile Iron <sup>1</sup> 65-45-12 |         |     |     | T: 1 5/8-12 SAE-20    |
| 5000 psi / 34.5 MPa                |         |     |     | P: 1 5/16-12 SAE-16   |
| Valve Spacing 3.25"                |         |     |     | A&B: 1 1/16-12 SAE-12 |



Parallel Circuit



Mounting kit not included.

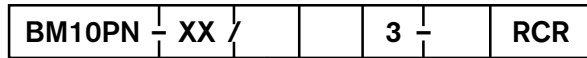
| Number of Stations      | 02   | 03    | 04    | 05    | 06    |
|-------------------------|------|-------|-------|-------|-------|
| Dim. "A"                | 7.00 | 10.25 | 13.50 | 16.75 | 20.00 |
| Dim. "B"                | —    | 3.25  | 6.50  | 9.75  | 13.00 |
| Approx. Weight DI (lbs) | 36   | 53    | 70    | 87    | 104   |

1) Blackening

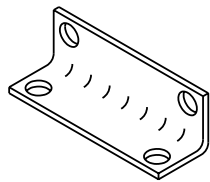
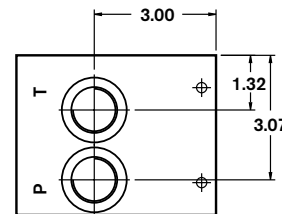
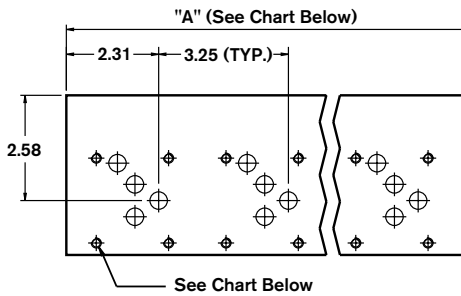
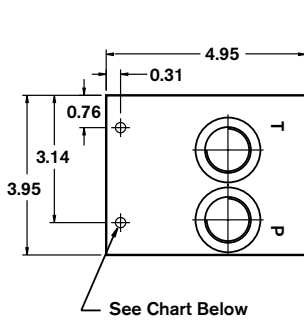
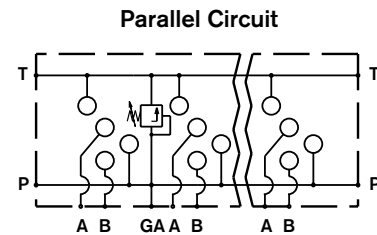
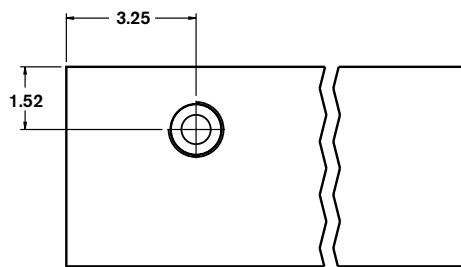
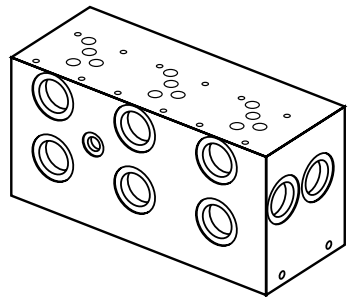
All dimensions in inches

# Bar Manifold

## D05 (Size 10) Parallel Circuit Normal Flow with DBDS Cavity

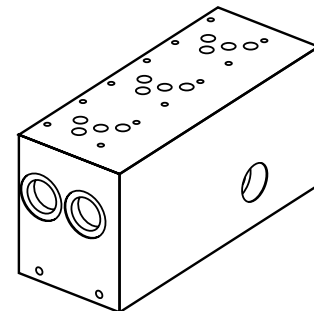
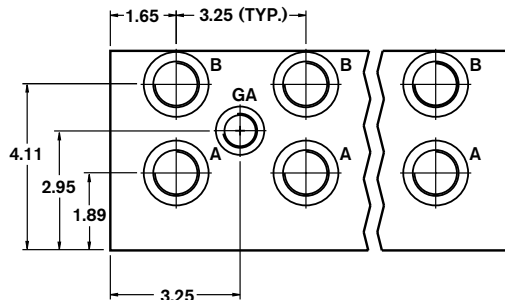


|  |         |              |                              |
|--|---------|--------------|------------------------------|
| <b>Revision</b>                              | = XX    | <b>RCR =</b> | Relief Cavity Rexroth DBDS10 |
| <b>Number of Station</b>                     | = 01-07 | <b>12 =</b>  | SAE Threaded Ports           |
| <b>Material</b>                              |         | <b>01 =</b>  | BSPP Threaded Ports          |
| Aluminum 6061-T6, 3000 psi                   | = A     |              |                              |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     |              |                              |
| <b>Valve Spacing 3.25"</b>                   | = 3     |              |                              |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.



|       | P & T Port       | A & B Ports      | GA Ports      | Manifold (Mtg.)    | Valve (Mtg.)      |
|-------|------------------|------------------|---------------|--------------------|-------------------|
| ...12 | 1-1/16-12 SAE-12 | 1-1/16-12 SAE-12 | 9/16-18 SAE-6 | 5/16-18 x 0.65 DP. | 1/4-20 x 0.60 DP. |
| ...01 | 3/4" BSPP        | 3/4" BSPP        | 1/4" BSPP     | M8 x 0.65 DP.      | M6 x 0.60 DP.     |

| Number of Stations      | 01   | 02   | 03    | 04    | 05    | 06    | 07    |
|-------------------------|------|------|-------|-------|-------|-------|-------|
| Dim. "A"                | 5.00 | 6.88 | 10.13 | 13.38 | 16.63 | 19.88 | 23.13 |
| Approx. Weight AL (lbs) | 10   | 13   | 20    | 24    | 32    | 39    | 45    |
| Approx. Weight DI (lbs) | 26   | 35   | 52    | 64    | 86    | 102   | 120   |

1) Blackening

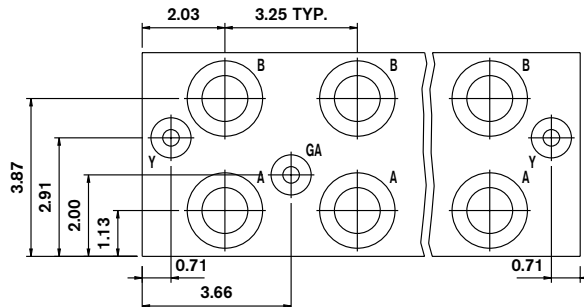
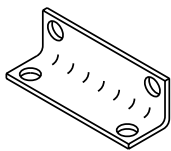
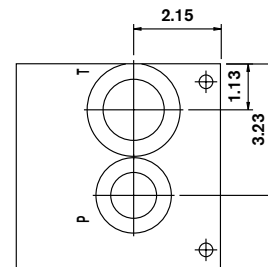
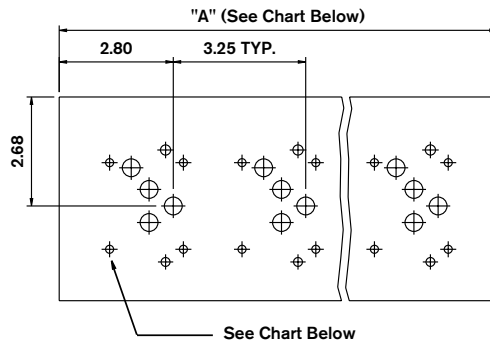
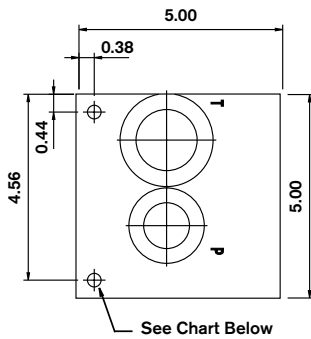
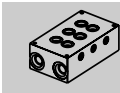
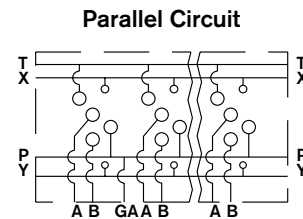
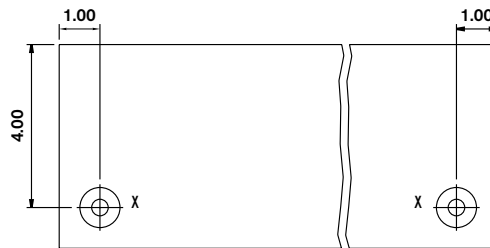
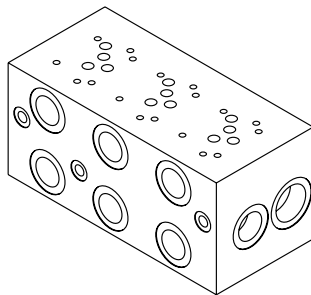
All dimensions in inches

# Bar Manifold

## D05 (Size 10) Parallel Circuit Extra High Flow with X & Y Ports

**BM10PX - XX / 3 -**

|  |         |             |                     |
|--|---------|-------------|---------------------|
| <b>Revision</b>                              | = XX    | <b>12 =</b> | SAE Threaded Ports  |
| <b>Number of Station</b>                     | = 01-06 | <b>01 =</b> | BSPP Threaded Ports |
| <b>Material</b>                              |         |             |                     |
| Aluminum 6061-T6, 3000 psi                   | = A     |             |                     |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     |             |                     |
| <b>Valve Spacing 3.25"</b>                   | = 3     |             |                     |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

|       | T Port          | P + A & B Ports  | GA, X & Y Ports | Manifold (Mtg.)   | Valve (Mtg.)      |
|-------|-----------------|------------------|-----------------|-------------------|-------------------|
| ...12 | 1-5/8-12 SAE-20 | 1-5/16-12 SAE-16 | 9/16-18 SAE-6   | 3/8-16 x 0.60 DP. | 1/4-20 x 0.60 DP. |
| ...01 | 1-1/4" BSPP     | 1" BSPP          | 1/4" BSPP       | M10 x 0.60 DP.    | M6 x 0.60 DP.     |

| Number of Stations      | 01 <sup>2</sup> | 02   | 03    | 04    | 05    | 06    |
|-------------------------|-----------------|------|-------|-------|-------|-------|
| Dim. "A"                | 4.25            | 7.50 | 10.75 | 14.00 | 17.25 | 20.50 |
| Approx. Weight AL (lbs) | 10              | 18   | 26    | 34    | 42    | 50    |
| Approx. Weight DI (lbs) | 27              | 48   | 69    | 91    | 112   | 133   |

1) Blackened 2) Gauge port not included

All dimensions in inches

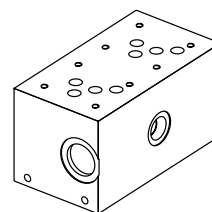
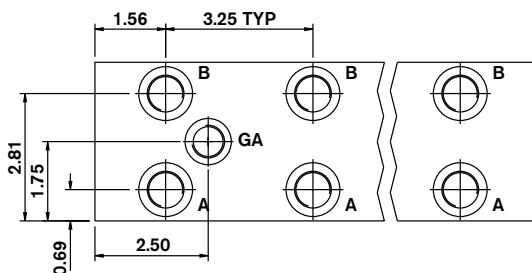
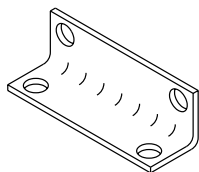
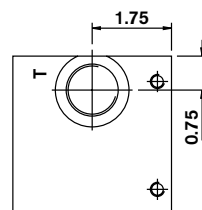
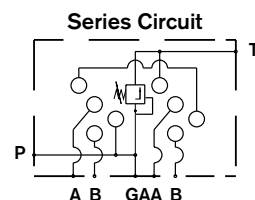
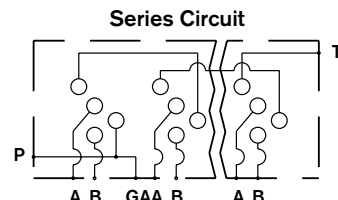
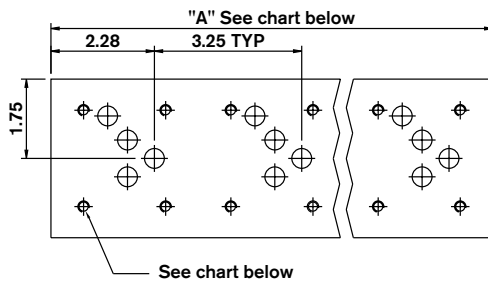
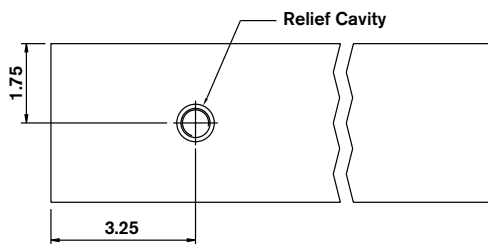
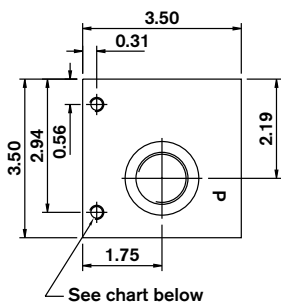
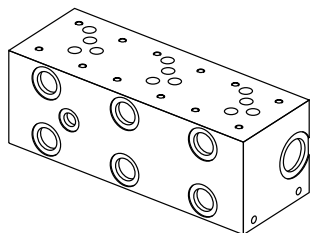
# Bar Manifold

## D05 (Size 10) Series Circuit Normal Flow



|                            |            |
|----------------------------|------------|
| <b>Revision</b>            | = XX       |
| <b>Number of Station</b>   | = 02-04    |
| <b>Material</b>            | = A<br>= D |
| <b>Valve Spacing 3.25"</b> | = 3        |

|               |                                    |
|---------------|------------------------------------|
| <b>Omit =</b> | No Options                         |
| <b>RCI =</b>  | Relief Cavity Industry Common 10-2 |
| <b>RCS =</b>  | Relief Cavity Sun T-3A (P in nose) |
| <b>12 =</b>   | SAE Threaded Ports                 |



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

|       | P & T Ports      | A & B Ports  | GA Ports      | Manifold (Mtg.)    | Valve (Mtg.)      |
|-------|------------------|--------------|---------------|--------------------|-------------------|
| ...12 | 1-1/16-12 SAE-12 | 3/4-16 SAE-8 | 9/16-18 SAE-6 | 5/16-18 x 0.50 DP. | 1/4-20 x 0.60 DP. |

| Number of Stations      | 02   | 03   | 04    |
|-------------------------|------|------|-------|
| Dim. "A"                | 6.50 | 9.75 | 13.00 |
| Approx. Weight AL (lbs) | 8    | 12   | 16    |
| Approx. Weight DI (lbs) | 20   | 31   | 41    |

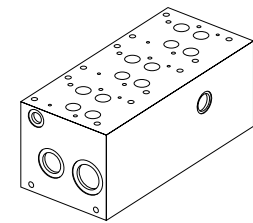
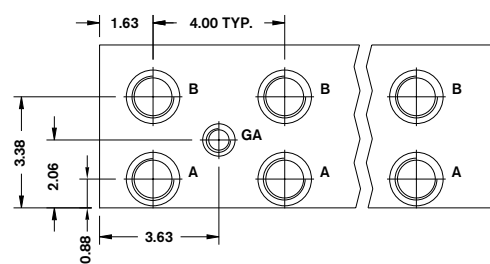
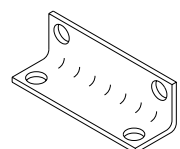
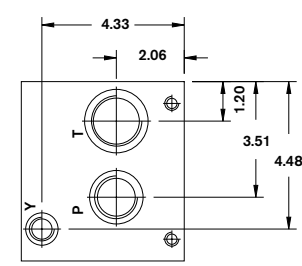
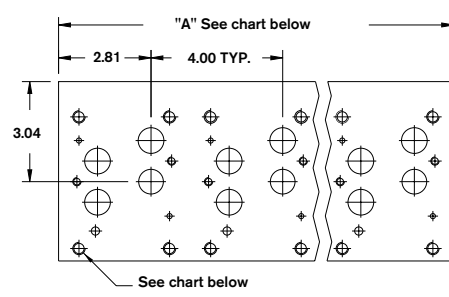
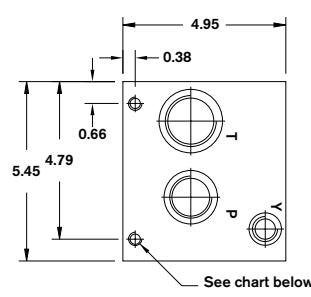
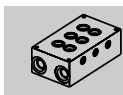
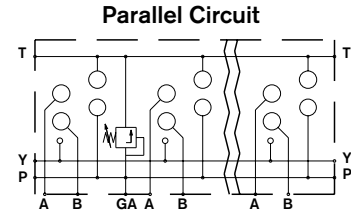
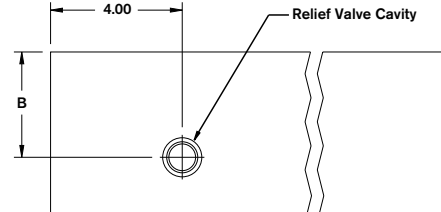
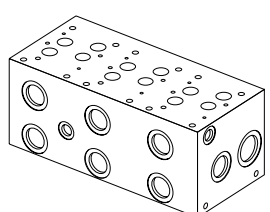
1) Blackening

All dimensions in inches

# Bar Manifold D07 (Size 16) Parallel Circuit Normal Flow

|        |        |   |   |  |
|--------|--------|---|---|--|
| BM16PN | - XX / | D | 4 |  |
|--------|--------|---|---|--|

|  |         |               |                                    |
|--|---------|---------------|------------------------------------|
| <b>Revisions</b>                             | = XX    | <b>Omit =</b> | No Options                         |
| <b>Number of Station</b>                     | = 01-06 | <b>RCI =</b>  | Relief Cavity Industry Common10-2  |
| <b>Material</b>                              |         | <b>RCS =</b>  | Relief Cavity Sun T-3A (P in nose) |
| Aluminum 6061-T6 (300 psi)                   | = A     | <b>12 =</b>   | SAE Threaded Ports                 |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     | <b>05 =</b>   | NPT Threaded Ports                 |
| <b>Valve Spacing 4.0"</b>                    | = 4     | <b>01 =</b>   | BSPB Threaded Ports                |



Mounting kit included, see Page 29 for details.

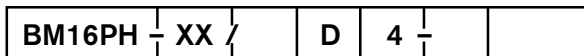
Additional mounting accessories available on Page 30.

|       | T Port           | P + A & B Ports  | GA, X & Y Ports | Manifold (Mtg.)   | Valve (Mtg.)                           |
|-------|------------------|------------------|-----------------|-------------------|--|
| ...12 | 1-5/16-12 SAE-16 | 1-1/16-12 SAE-12 | 9/16-18 SAE-6   | 3/8-16 x 0.75 DP. | 3/8-16 x 0.70 DP.<br>1/4-20 x 0.75 DP. |
| ...05 | 1" NPT           | 3/4" NPT         | 1/4" NPT        | 3/8-16 x 0.75 DP. | 3/8-16 x 0.70 DP.<br>1/4-20 x 0.75 DP. |
| ...01 | 1" BSPP          | 3/4" BSPP        | 1/4" BSPP       | M10 x 0.75 DP.    | M10 x 0.70 DP.<br>M6 x 0.75 DP.        |

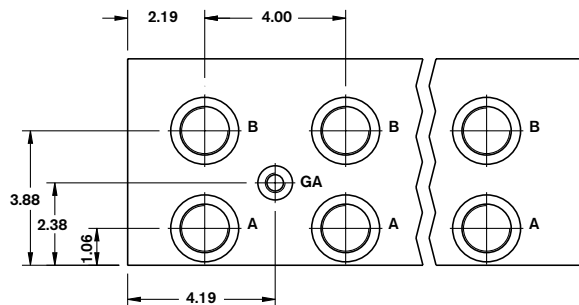
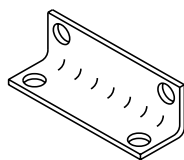
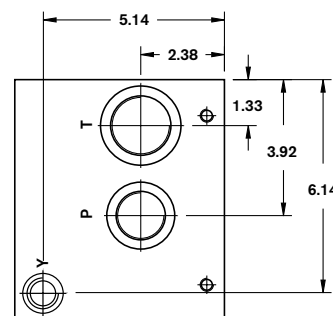
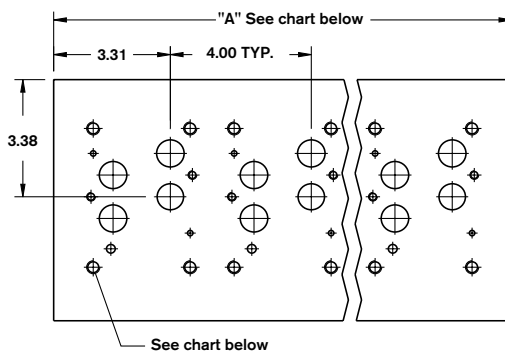
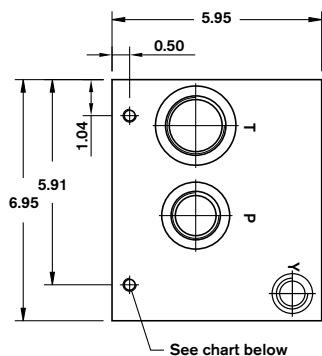
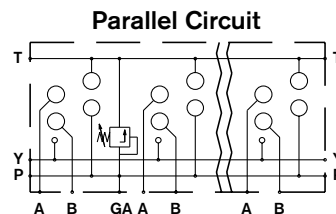
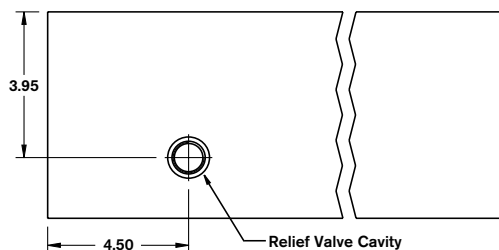
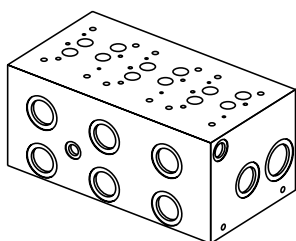
| Number of Stations      | 01 <sup>2</sup>    | 02   | 03    | 04    | 05    | 06    |
|-------------------------|--------------------|------|-------|-------|-------|-------|
| Dim. "A"                | 4.03 <sup>3</sup>  | 8.00 | 12.00 | 16.00 | 20.00 | 24.00 |
| Dim. "B" RCI            | 3.20               | 3.20 | 3.20  | 3.20  | 3.20  | 3.20  |
| Dim. "B" RCS            | 3.25               | 3.25 | 3.25  | 3.25  | 3.25  | 3.25  |
| Approx. Weight AL (lbs) | 11/14 <sup>3</sup> | 21   | 32    | 43    | 53    | 64    |
| Approx. Weight DI (lbs) | 28/38 <sup>3</sup> | 56   | 84    | 112   | 140   | 168   |

1) Blackening 2) Gauge port not included 3) Dim. "A" with relief cavity is 5.50" All dimensions in inches

# Bar Manifold D07 (Size 16) Parallel Circuit High Flow



|                           |  |     |     |  |  |  |               |                                     |
|---------------------------|--|-----|-----|--|--|--|---------------|-------------------------------------|
| <b>Revision</b>           | = XX   |     |     |  |  |  | <b>Omit =</b> | No Options                          |
| <b>Number of Station</b>  | = 01-06                                      |     |     |  |  |  | <b>RCI =</b>  | Relief Cavity Industry Common 16-2  |
| <b>Material</b>           | Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D |     |  |  |  | <b>RCS =</b>  | Relief Cavity Sun T-16A (P in nose) |
| <b>Valve Spacing 4.0"</b> |  |     | = 4 |  |  |  | <b>12 =</b>   | SAE Threaded Ports                  |
|                           |  |     |     |  |  |  | <b>01 =</b>   | BSPF Threaded Ports                 |



Mounting kit included, see Page 29 for details.

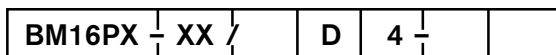
Additional mounting accessories available on Page 30.

|       | T Port          | P + A & B Ports  | GA, X & Y Ports | Manifold (Mtg.)   | Valve (Mtg.)                           |
|-------|-----------------|------------------|-----------------|-------------------|--|
| ...12 | 1-5/8-12 SAE-20 | 1-5/16-12 SAE-16 | 9/16-18 SAE-6   | 3/8-16 x 0.75 DP. | 3/8-16 x 0.70 DP.<br>1/4-20 x 0.75 DP. |
| ...01 | 1-1/4" BSPP     | 1" BSPP          | 1/4" BSPP       | M10 x 0.75 DP.    | M10 x 0.70 DP.<br>M6 x 0.75 DP.        |

| Number of Stations      | 01 <sup>2</sup>    | 02   | 03    | 04    | 05    | 06    |
|-------------------------|--------------------|------|-------|-------|-------|-------|
| Dim. "A"                | 5.00 <sup>3</sup>  | 9.00 | 13.00 | 17.00 | 21.00 | 25.00 |
| Approx. Weight DI (lbs) | 54/70 <sup>3</sup> | 96   | 139   | 182   | 225   | 268   |

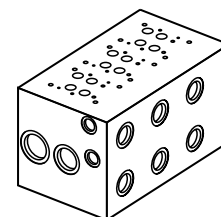
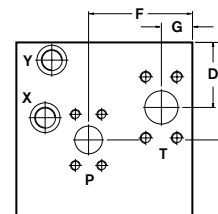
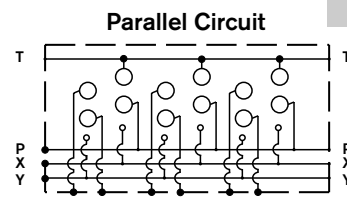
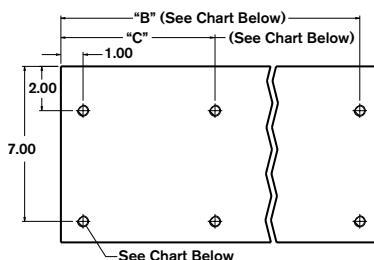
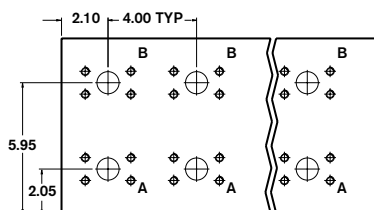
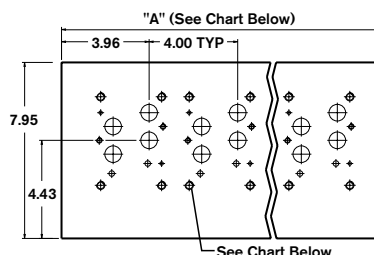
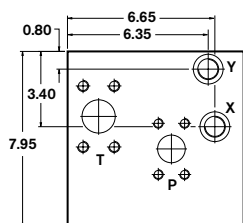
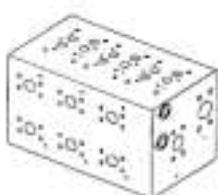
1) Blackening      2) Gauge port not included      3) Dim. "A" with relief cavity is 6.50"      All dimensions in inches

# Bar Manifold D07 (Size 16) Parallel Circuit Extra High Flow



|                    |         |
|--------------------|---------|
| Revision           | = XX    |
| Number of Station  | = 02-06 |
| Material           | = D     |
| Valve Spacing 4.0" | = 4     |

|                      |  |
|----------------------|--|
| L =<br>H =           | <b>Pressure Rating</b>   |
|                      | Low 3000 psi (Code 61)<br>High 6000 psi (Code 62)<br>Available only on SAE Flanged Ports |
| 01 =<br>07 =<br>12 = | <b>Ports</b>   |
|                      | BSPP Threaded Ports  |
|                      | SAE Flanged<br>SAE Threaded Ports  |



Mounting kit not included.

| Model Code | Manifold (Mtg.)   | Valve (Mtg.)                    |
|------------|-------------------|---------------------------------|
| BM16...07L | 1/2-13 x 0.90 DP. | 3/8-16 x 0.70 DP.               |
| BM16...07H |                   | 1/4-20 x 0.75 DP.               |
| BM16...12  |                   |                                 |
| BM16...01  | M12 x 0.90 DP.    | M10 x 0.70 DP.<br>M6 x 0.70 DP. |

| Model Code | P Port                                  | T Port                                  | A & B Ports                         | X & Y Ports | D    | E    | F    | G    |
|------------|---|---|-------------------------------------|-------------|------|------|------|------|
| BM16...07L | 1-1/4" 3000 PSI<br>(Code 61) SAE Flange | 1-1/2" 3000 PSI<br>(Code 61) SAE Flange | 1" 3000 PSI<br>(Code 61) SAE Flange | SAE-10      | 2.94 | 4.40 | 4.30 | 1.40 |
| BM16...07H | 1-1/4" 6000 PSI<br>(Code 62) SAE Flange | 1-1/2" 6000 PSI<br>(Code 62) SAE Flange | 1" 6000 PSI<br>(Code 62) SAE Flange | SAE-10      | 2.94 | 4.40 | 4.30 | 1.40 |
| BM16...01  | 1-1/4" BSPP                             | 1-1/2" BSPP                             | 1" BSPP                             | 1/2" BSPP   | 4.30 | 4.30 | 4.35 | 1.52 |
| BM16...12  | SAE-20                                  | SAE-24                                  | SAE-16                              | SAE-10      | 4.30 | 4.30 | 4.35 | 1.52 |

| Number of Stations      | 02    | 03    | 04    | 05    | 06    |
|-------------------------|-------|-------|-------|-------|-------|
| Dim. "A"                | 10.00 | 14.00 | 18.00 | 22.00 | 26.00 |
| Dim. "B"                | 9.00  | 13.00 | 17.00 | 21.00 | 25.00 |
| Dim. "C"                | -     | -     | -     | 11.00 | 13.00 |
| Approx. Weight DI (lbs) | 164   | 230   | 295   | 361   | 427   |

1) Blackening

2) Third Pair of Mounting Holes

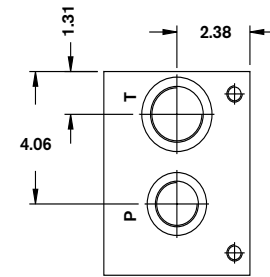
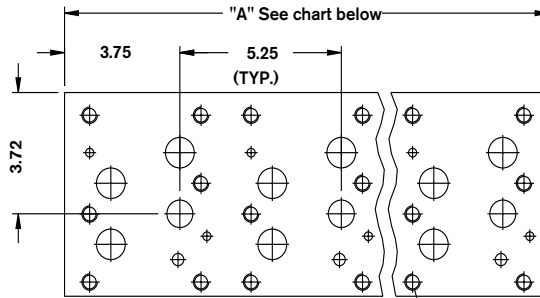
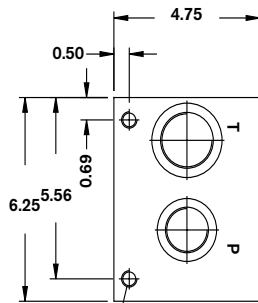
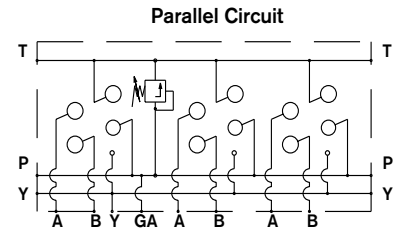
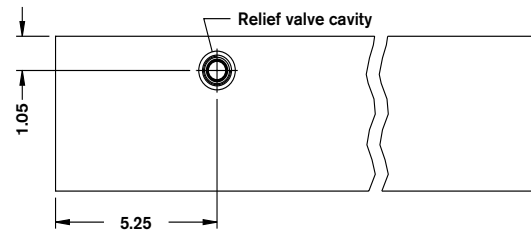
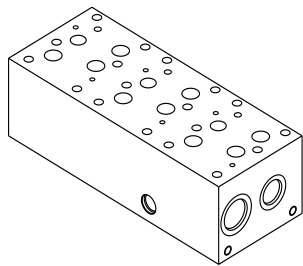
All dimensions in inches

# Bar Manifold

## D08 (Size 22/25) Parallel Circuit Normal Flow

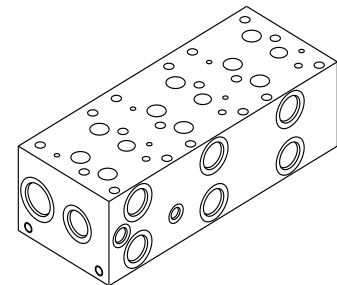
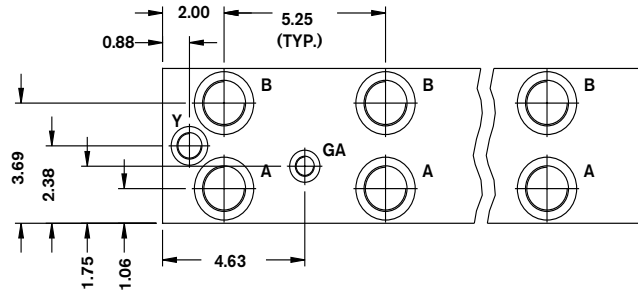
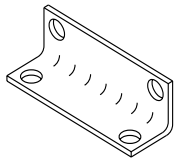
BM22PN - XX / 5 -

|  |         |  |  |  |     |               |                                    |
|--|---------|--|--|--|-----|---------------|------------------------------------|
| <b>Revision</b>                              | = XX    |  |  |  |     | <b>Omit =</b> | No Options                         |
| <b>Number of Station</b>                     | = 01-07 |  |  |  |     | <b>RCI =</b>  | Relief Cavity Industry Common 10-2 |
| <b>Material</b>                              |         |  |  |  |     | <b>RCS =</b>  | Relief Cavity Sun T-3A (P in nose) |
| Aluminum 6061-T6, 3000 psi                   |         |  |  |  | = A |               |                                    |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi |         |  |  |  | = D |               |                                    |
| <b>Valve Spacing 5.25"</b>                   |         |  |  |  | = 5 | <b>12 =</b>   | <b>Ports</b><br>SAE Threaded Ports |



(4) 1/2-13 X .80 DP. (MTG.)

1/2-13 X 1.00 DP. (TYP.)



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

| T Port | P, A & B Port   | Y Port       | GA Ports      |
|--------|-----------------|--------------|---------------|
| ...12  | 1-5/8-12 SAE-20 | 3/4-16 SAE-8 | 9/16-18 SAE-6 |

| Number of Stations      | 01 <sup>2</sup> | 01 <sup>3</sup> | 02    | 03    | 04    | 05    | 06    | 07    |
|-------------------------|-----------------|-----------------|-------|-------|-------|-------|-------|-------|
| Dim. "A"                | 5.25            | 7.00            | 10.50 | 15.75 | 21.00 | 26.25 | 31.50 | 36.75 |
| Approx. Weight AL (lbs) | 15              | 20              | 30    | 46    | 61    | 76    | 92    | 107   |
| Approx. Weight DI (lbs) | 41              | 54              | 81    | 121   | 162   | 203   | 243   | 283   |

1) Blackening      2) Gauge port not included      3) with relief      All dimensions in inches

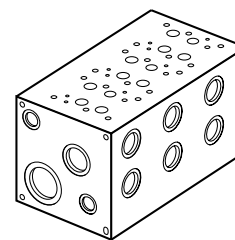
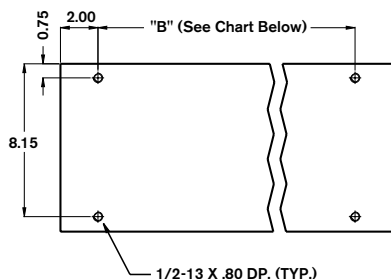
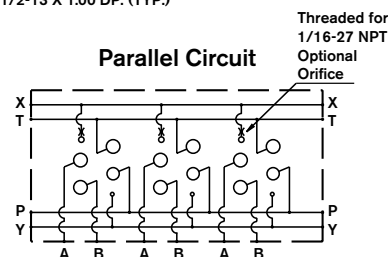
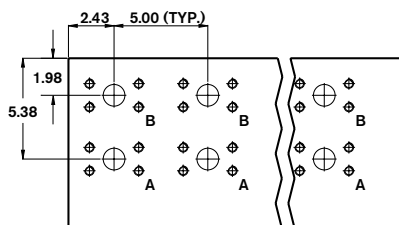
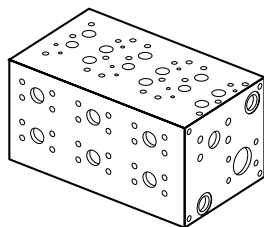
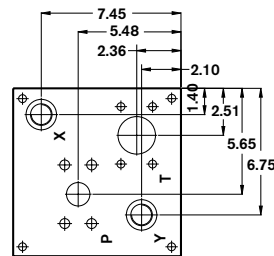
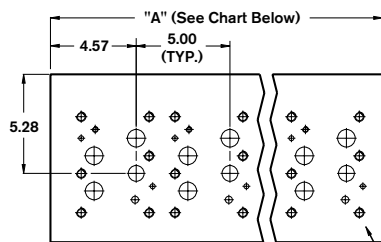
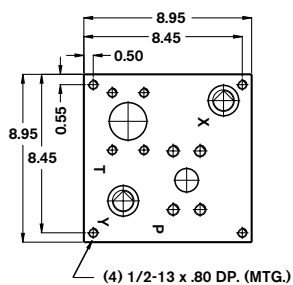


# Bar Manifold D08 (Size 22/25) Parallel Circuit Extra High Flow

BM22PX - XX / 5 -

|  |         |
|--|---------|
| <b>Revision</b>                              | = XX    |
| <b>Number of Station</b>                     | = 01-06 |
| <b>Material</b>                              | = A     |
| Aluminum 6061-T6, 3000 psi                   |         |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     |
| <b>Valve Spacing 5.0"</b>                    | = 5     |

|                        |                                     |
|------------------------|-------------------------------------|
| <b>Pressure Rating</b> |                                     |
| L =                    | Low 3000 psi (Code 61)              |
| H =                    | High 6000 psi (Code 62)             |
|                        | Available only on SAE Flanged Ports |
| <b>Ports</b>           |                                     |
| 07 =                   | SAE Flanged                         |
| 12 =                   | SAE Threaded Ports                  |



Mounting kit not included.

| Model Code | P Port              | T Port            | A & B Ports         | X & Y Ports        |
|------------|---------------------|-------------------|---------------------|--------------------|
| BM22...07L | 1-1/2" SAE 3000 psi | 2" SAE 3000 psi   | 1-1/4" SAE 3000 psi | SAE-12 (1-1/16-12) |
| BM22...07H | 1-1/2" SAE 6000 psi | 2" SAE 3000 psi   | 1-1/4" SAE 6000 psi | SAE-12 (1-1/16-12) |
| BM22...12  | SAE-24 (1-7/8-12)   | SAE-32 (2-1/2-12) | SAE-20 (1-5/8-12)   | SAE-12 (1-1/16-12) |

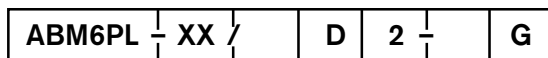
| Number of Stations      | 01  | 02   | 03   | 04   | 05   | 06   |
|-------------------------|-----|------|------|------|------|------|
| Dim. "A"                | 6.5 | 11.5 | 16.5 | 21.5 | 26.5 | 31.5 |
| Dim. "B"                | 2.5 | 7.5  | 12.5 | 17.5 | 22.5 | 27.5 |
| Approx. Weight DI (lbs) | 136 | 240  | 344  | 448  | 552  | 656  |
| Approx. Weight AL (lbs) | 51  | 90   | 129  | 168  | 208  | 247  |

1) Blackening

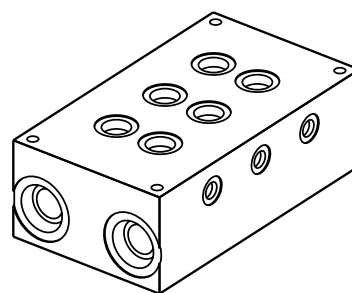
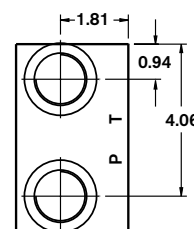
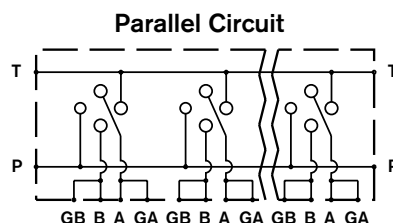
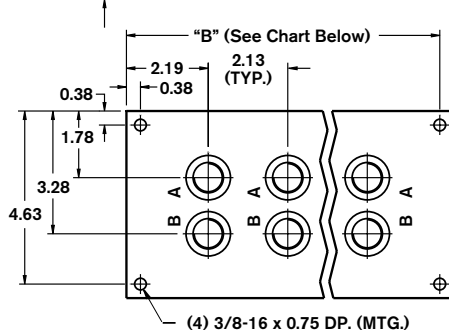
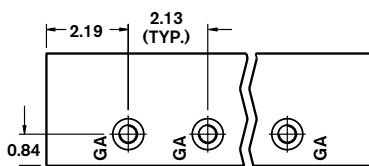
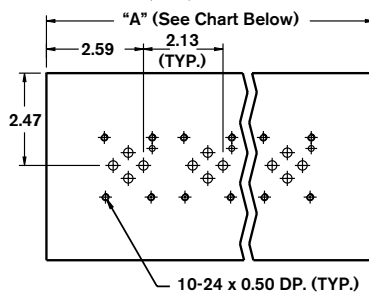
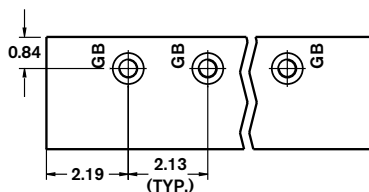
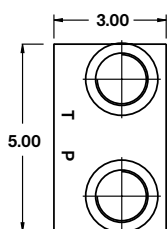
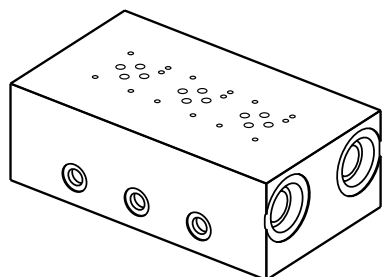
All dimensions in inches

# Bar Manifold

## D03 (Size 6) Parallel Circuit Low Flow



|                      |         |     |     |  |  |      |                         |
|----------------------|---------|-----|-----|--|--|------|-------------------------|
| Revision             | = XX    |     |     |  |  | G =  | Gauge Ports for A and B |
| Number of Station    | = 01-08 |     |     |  |  | 12 = | SAE Threaded Ports      |
| Material             |         | = D |     |  |  |      | P & T: 1 5/16-12 SAE-16 |
|                      |         |     |     |  |  |      | A & B: 3/4-16 SAE-8     |
| Valve Spacing 2.125" |         |     | = 2 |  |  |      | GA: 7/16-20 SAE-4       |



Mounting kit not included.

| Number of Stations      | 01    | 02    | 03    | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|-------|--------|--------|--------|--------|--------|
| Dim. "A"                | 4.50  | 6.50  | 8.75  | 10.75  | 13.00  | 15.00  | 17.25  | 19.25  |
| Dim. "B"                | 4.125 | 6.125 | 8.375 | 10.375 | 12.625 | 14.625 | 16.875 | 18.875 |
| Approx. Weight DI (lbs) | 18    | 25    | 34    | 42     | 51     | 59     | 67     | 75     |

1) Blackening

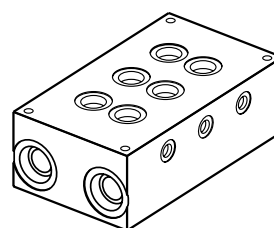
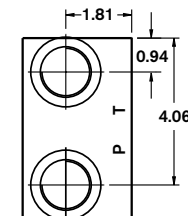
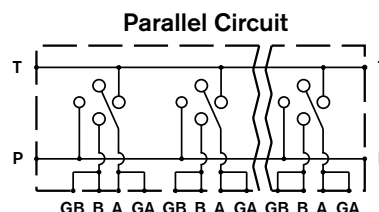
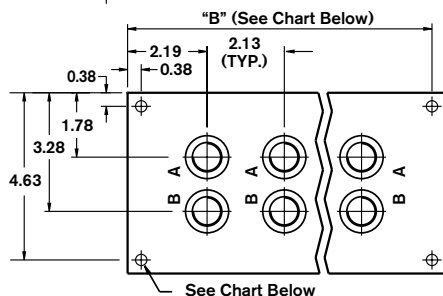
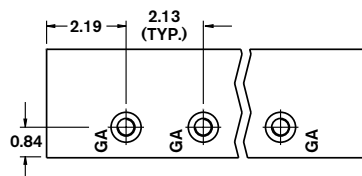
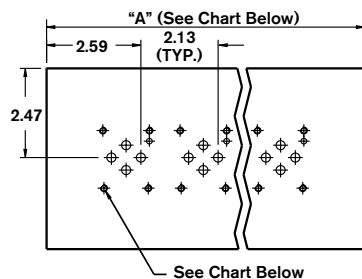
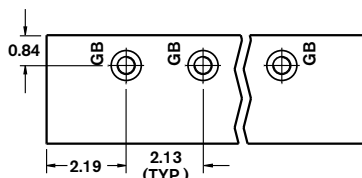
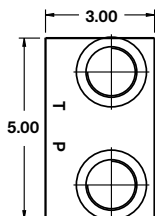
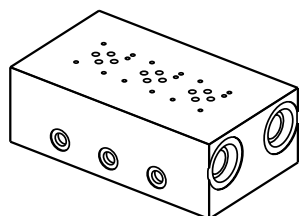
All dimensions in inches

# Bar Manifold D03 (Size 6) Parallel Circuit Normal Flow



|                      |            |
|----------------------|------------|
| Revision             | = XX       |
| Number of Station    | = 01-08    |
| Material             | = A<br>= D |
| Valve Spacing 2.125" | = 2        |

|        |                         |
|--------|-------------------------|
| Omit = | UNC Mounting Taps       |
| M =    | Metric Mounting Taps    |
|        | BSPB Ports only         |
| G =    | Gauge Ports for A and B |
| 12 =   | SAE Threaded Ports      |
| 01 =   | BSPB Threaded Ports     |



Mounting kit not included.

|         | P & T Ports      | A & B Ports   | GA & GB Ports | Manifold (Mtg.)   | Valve (Mtg.)     |
|---------|------------------|---------------|---------------|-------------------|------------------|
| ...12G  | 1-5/16-12 SAE-16 | 7/8-14 SAE-10 | 7/16-20 SAE-4 | 3/8-16 x 0.75 DP. | 10-24 x 0.50 DP. |
| ...01GM | 1" BSPB          | 1/2" BSPB     | 1/4" BSPB     | M10 x 0.75 DP.    | M5 x 0.50 DP.    |

| Number of Stations      | 01    | 02    | 03    | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|-------|--------|--------|--------|--------|--------|
| Dim. "A"                | 4.50  | 6.50  | 8.75  | 10.75  | 13.00  | 15.00  | 17.25  | 19.25  |
| Dim. "B"                | 4.125 | 6.125 | 8.375 | 10.375 | 12.625 | 14.625 | 16.875 | 18.875 |
| Approx. Weight DI (lbs) | 18    | 25    | 34    | 42     | 51     | 59     | 67     | 75     |
| Approx. Weight AL (lbs) | 7     | 9     | 13    | 16     | 19     | 22     | 25     | 28     |

1) Blackening

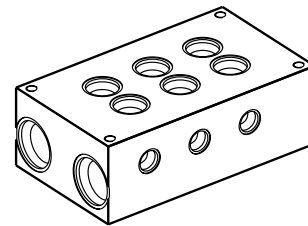
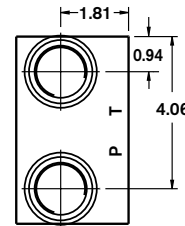
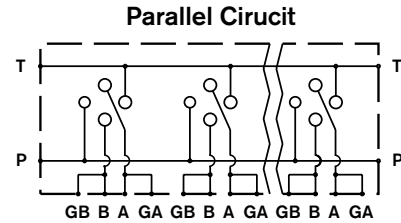
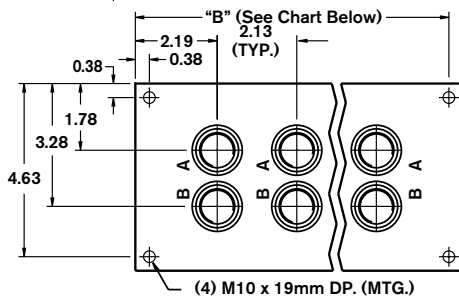
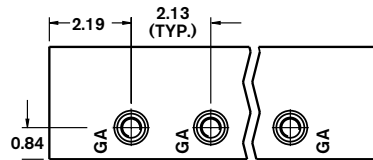
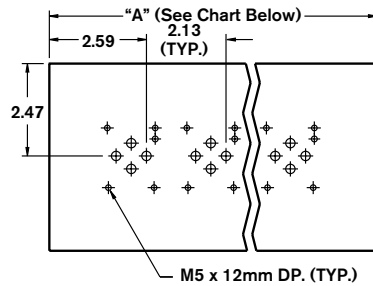
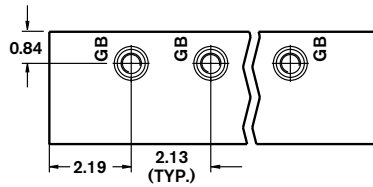
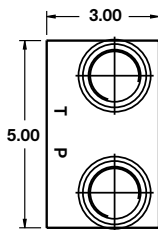
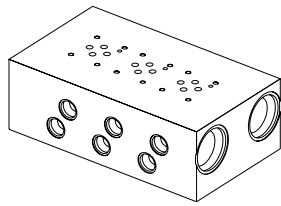
All dimensions in inches

# Bar Manifold

## D03 (Size 6) Parallel Circuit High Flow with ISO 6149-1

|        |        |   |   |      |   |   |
|--------|--------|---|---|------|---|---|
| ABM6PH | - XX / | D | 2 | - 50 | G | M |
|--------|--------|---|---|------|---|---|

|                             |  |     |     |      |     |     |  |
|-----------------------------|--|-----|-----|------|-----|-----|--|
| <b>Revision</b>             | = XX   | = D | = 2 | 50 = | G = | M = | Metric Mounting Taps<br>ISO 6149-1 Ports only  |
| <b>Number of Station</b>    | = 01-08                                      |     |     |      |     |     |  |
| <b>Material</b>             | Ductile Iron <sup>1</sup> 65-45-12, 5000 psi |     |     |      |     |     |  |
| <b>Valve Spacing 2.125"</b> |  |     |     |      |     |     |  |
|                             |  |     |     |      |     |     | Gauge Ports for A and B<br>ISO 6149-1<br>P & T: M33 x 2<br>A & B: M22 x 1.5<br>GA: M12 x 1.5 |



Mounting kit not included.

| Number of Stations      | 01    | 02    | 03    | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|-------|--------|--------|--------|--------|--------|
| Dim. "A"                | 4.50  | 6.50  | 8.75  | 10.75  | 13.00  | 15.00  | 17.25  | 19.25  |
| Dim. "B"                | 4.125 | 6.125 | 8.375 | 10.375 | 12.625 | 14.625 | 16.875 | 18.875 |
| Approx. Weight DI (lbs) | 18    | 25    | 34    | 42     | 51     | 59     | 67     | 75     |

Ports conform to ISO 6149-1: 1993, Connections for Fluid Power and General Use – Ports and Stud Ends with ISO 261 Threads and O-Ring Sealing – Part 1: Ports with O-Ring Seal in Truncated Housing

1) Blackening

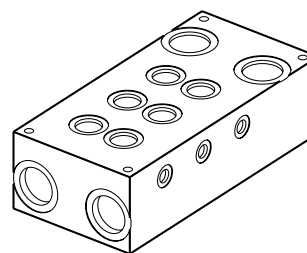
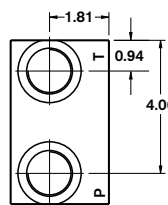
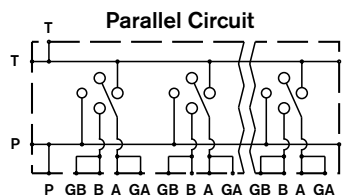
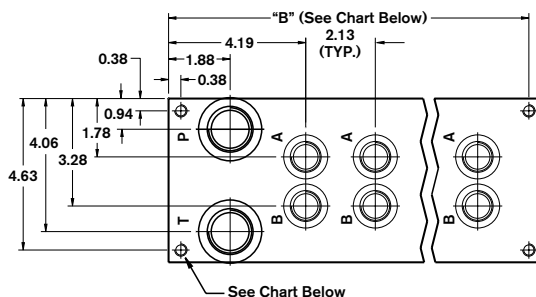
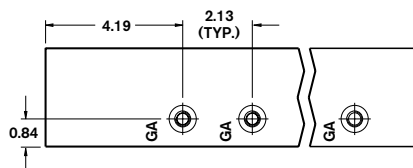
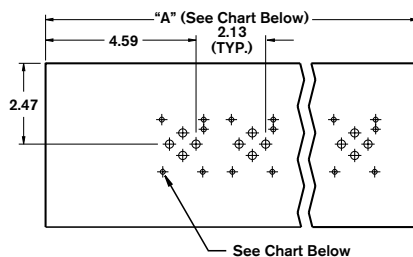
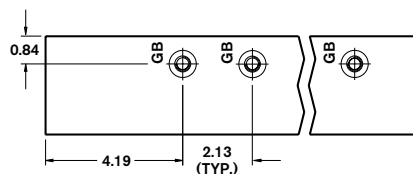
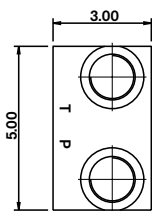
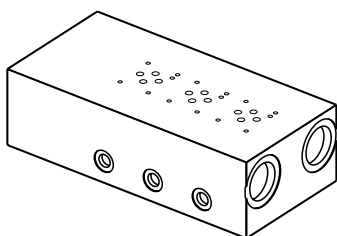
All dimensions in inches

# Bar Manifold

## D03 (Size 6) Parallel Circuit Normal Flow with Bottom-Ported P & T



|                      |         |  |     |  |  |  |  |  |        |                         |
|----------------------|---------|--|-----|--|--|--|--|--|--------|-------------------------|
| Revision             | = XX    |  |     |  |  |  |  |  | Omit = | UNC Mounting Taps       |
| Number of Station    | = 01-08 |  |     |  |  |  |  |  | M =    | Metric Mounting Taps    |
| Material             |         |  |     |  |  |  |  |  |        | BSPB Ports only         |
| Valve Spacing 2.125" |         |  | = D |  |  |  |  |  | B =    | Bottom Ported P and T   |
| SAE Threaded Ports   |         |  |     |  |  |  |  |  | G =    | Gauge Ports for A and B |
| BSPP Threaded Ports  |         |  |     |  |  |  |  |  |        |                         |



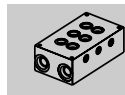
Mounting kit not included.

| P & T Ports | A & B Ports      | GA & GB Ports | Manifold (Mtg.)   | Valve (Mtg.)     |
|-------------|------------------|---------------|-------------------|------------------|
| ...12G      | 1-5/16-12 SAE-16 | 7/8-14 SAE-10 | 3/8-16 x 0.75 DP. | 10-24 x 0.50 DP. |
| ...01GM     | 1" BSPP          | 1/2" BSPP     | M10 x 0.75 DP.    | M5 x 0.50 DP.    |

| Number of Stations      | 01    | 02    | 03     | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| Dim. "A"                | 6.25  | 8.25  | 10.50  | 12.50  | 14.75  | 16.75  | 19.00  | 21.00  |
| Dim. "B"                | 5.865 | 7.875 | 10.125 | 12.125 | 14.375 | 16.375 | 18.625 | 20.625 |
| Approx. Weight DI (lbs) | 25    | 32    | 41     | 49     | 58     | 66     | 74     | 82     |

1) Blackening

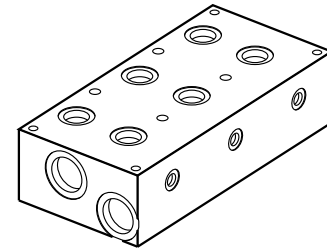
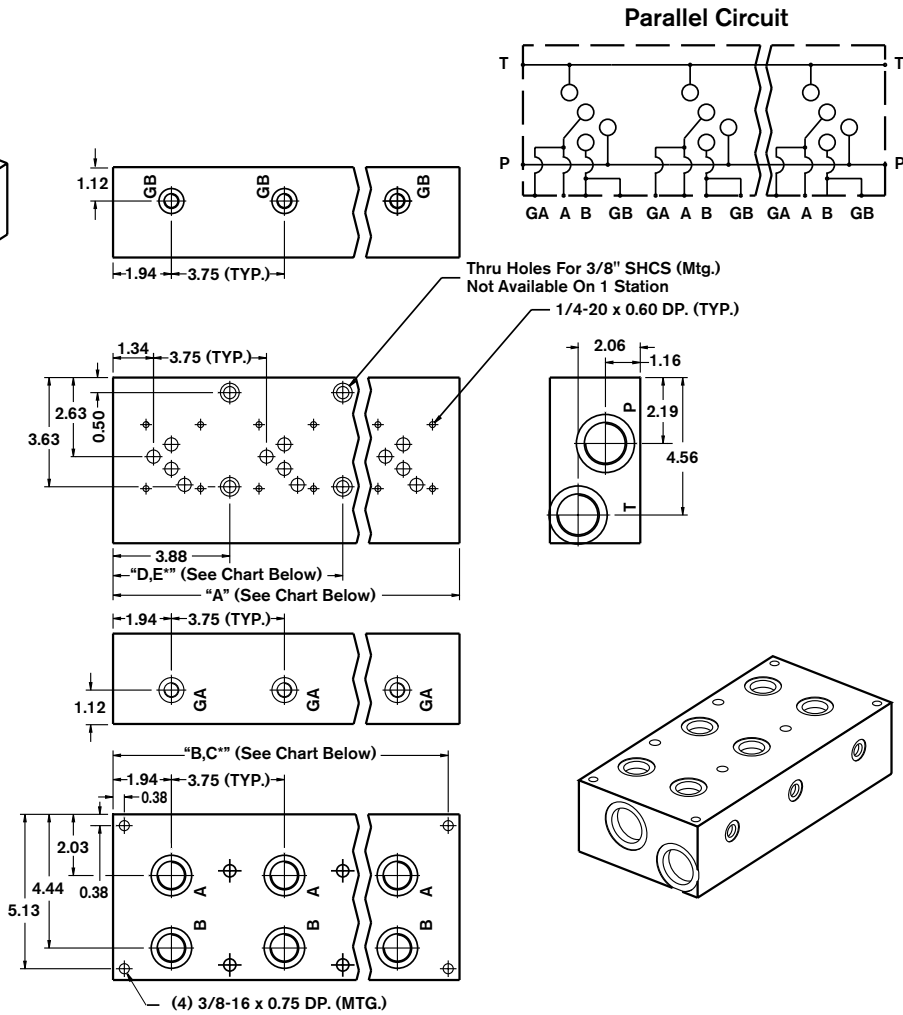
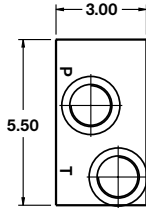
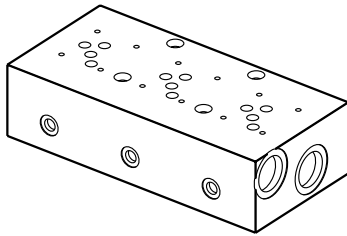
All dimensions in inches



# Bar Manifold D05 (Size 10) Parallel Circuit Low Flow

ABM10PL - XX / D 3 - 12 G

|  |         |      |                         |
|--|---------|------|-------------------------|
| Revision                                     | = XX    | G =  | Gauge Ports for A and B |
| Number of Station                            | = 01-08 | 12 = | SAE Threaded Ports      |
| Material                                     | = D     |      | P & T: 1 5/16-12 SAE-16 |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi |         |      | A & B: 7/8-14 SAE-10    |
| Valve Spacing 3.75"                          | = 3     |      | GA: 7/16-20 SAE-4       |



Mounting kit not included.

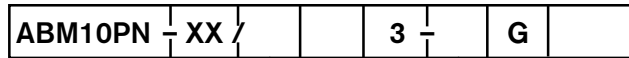
| Number of Stations      | 01    | 02    | 03     | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| Dim. "A"                | 4.00  | 7.75  | 11.50  | 15.25  | 19.00  | 22.75  | 26.50  | 30.25  |
| Dim. "B"                | 3.625 | 7.375 | 11.125 | 14.875 | 18.625 | 22.375 | 26.125 | 29.875 |
| Dim. "C" <sup>2</sup>   | -     | -     | -      | -      | -      | 11.125 | 14.875 | 14.875 |
| Dim. "D"                | -     | -     | 7.625  | 11.375 | 15.125 | 18.875 | 22.625 | 26.375 |
| Dim. "E" <sup>2</sup>   | -     | -     | -      | -      | -      | 11.563 | 11.375 | 15.312 |
| Approx. Weight DI (lbs) | 17    | 33    | 49     | 65     | 82     | 98     | 114    | 130    |

1) Blackening

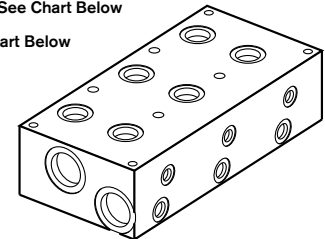
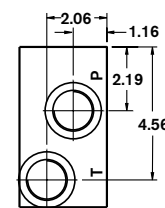
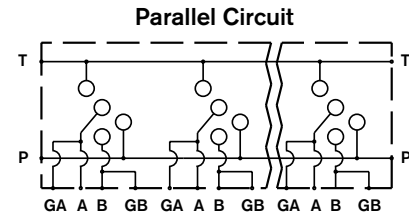
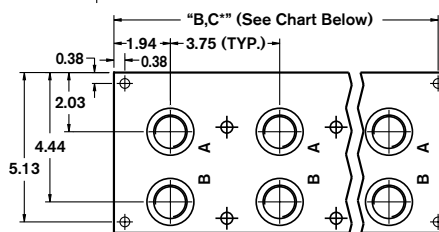
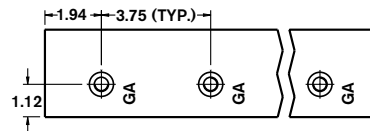
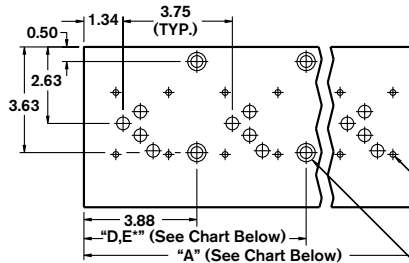
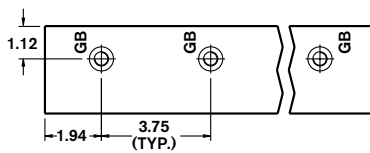
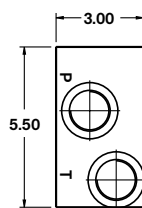
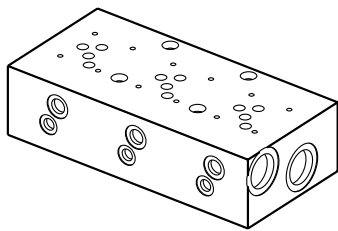
2) Third Pair of Mounting Holes

All dimensions in inches

# Bar Manifold D05 (Size 10) Parallel Circuit Normal Flow



|  |         |  |     |     |  |               |                         |
|--|---------|--|-----|-----|--|---------------|-------------------------|
| <b>Revision</b>                              | = XX    |  |     |     |  | <b>Omit =</b> | UNC Mounting Taps       |
| <b>Number of Station</b>                     | = 01-08 |  |     |     |  | <b>M =</b>    | Metric Mounting Taps    |
| <b>Material</b>                              |         |  |     |     |  | <b>G =</b>    | BSPB Ports only         |
| Aluminum 6061-T6, 3000 psi                   |         |  |     | = A |  |               | Gauge Ports for A and B |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi |         |  |     | = D |  | <b>12 =</b>   | SAE Threaded Ports      |
| <b>Valve Spacing 3.75"</b>                   |         |  | = 3 |     |  | <b>01 =</b>   | BSPB Threaded Ports     |



Mounting kit not included.

|         | P & T Ports      | A & B Ports      | GA & GB Ports | Manifold (Mtg.)   | Valve (Mtg.)      | Thru (Mtg.) |
|---------|------------------|------------------|---------------|-------------------|-------------------|-------------|
| ...12G  | 1-5/16-12 SAE-16 | 1-1/16-12 SAE-12 | 7/16-20 SAE-4 | 3/8-16 x 0.75 DP. | 1/4-20 x 0.60 DP. | 3/8" SHCS   |
| ...01GM | 1" BSPB          | 3/4" BSPB        | 1/4" BSPB     | M10 x 0.60 DP.    | M6 x 0.60 DP.     | M10" SHCS   |

| Number of Stations      | 01    | 02    | 03     | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| Dim. "A"                | 4.00  | 7.75  | 11.50  | 15.25  | 19.00  | 22.75  | 26.50  | 30.25  |
| Dim. "B"                | 3.625 | 7.375 | 11.125 | 14.875 | 18.625 | 22.375 | 26.125 | 29.875 |
| Dim. "C" <sup>2</sup>   | -     | -     | -      | -      | -      | 11.125 | 14.875 | 14.875 |
| Dim. "D"                | -     | -     | 7.625  | 11.375 | 15.125 | 18.875 | 22.625 | 26.375 |
| Dim. "E" <sup>2</sup>   | -     | -     | -      | -      | -      | 11.563 | 11.375 | 15.312 |
| Approx. Weight DI (lbs) | 17    | 33    | 49     | 65     | 82     | 98     | 114    | 130    |
| Approx. Weight AL (lbs) | 6     | 12    | 18     | 24     | 31     | 37     | 43     | 49     |

1) Blackening

2) Third Pair of Mounting Holes

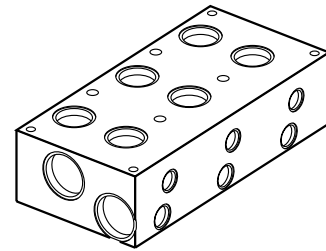
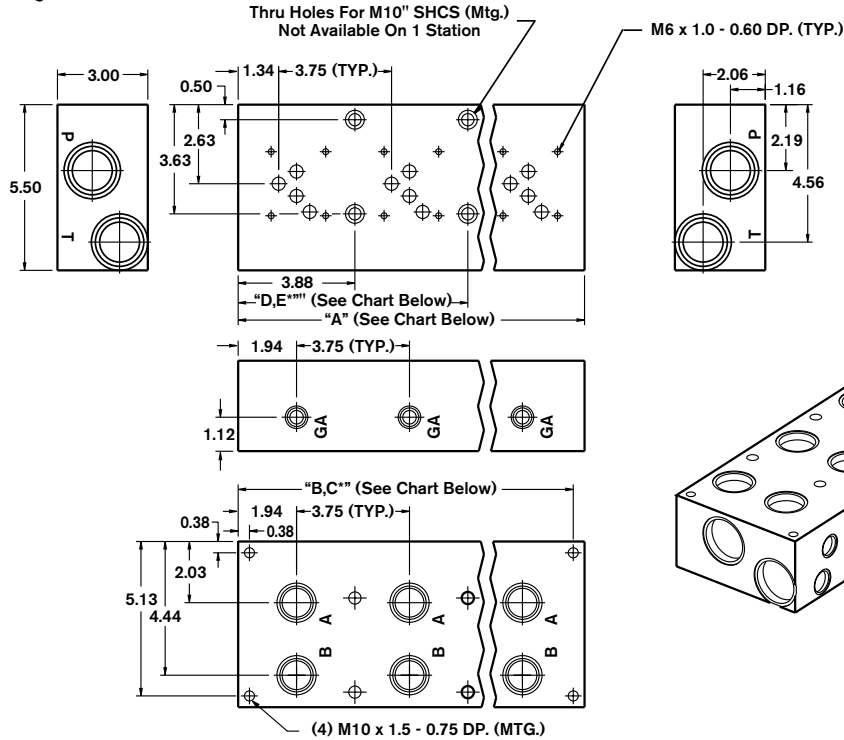
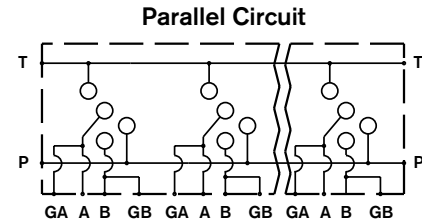
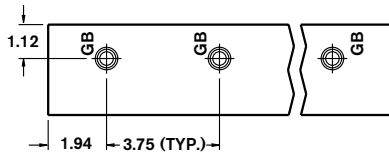
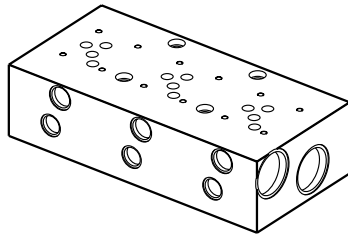
All dimensions in inches

# Bar Manifold

## D05 (Size 10) Parallel Circuit High Flow with ISO 6149-1 Ports

|         |      |   |   |    |   |   |
|---------|------|---|---|----|---|---|
| ABM10PH | XX / | D | 3 | 50 | G | M |
|---------|------|---|---|----|---|---|

|                     |         |      |                         |
|---------------------|---------|------|-------------------------|
| Revision            | = XX    | M =  | Metric Mounting Bolts   |
| Number of Station   | = 01-08 | G =  | Gauge Ports for A and B |
| Material            | = D     | 50 = | ISO 6149-1              |
| Valve Spacing 3.75" | = 3     |      | P & T: M33 x 2          |
|                     |         |      | A & B: M27 x 2          |
|                     |         |      | GA: M12 x 1.5           |



Mounting kit not included.

| Number of Stations      | 01    | 02    | 03     | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| Dim. "A"                | 4.00  | 7.75  | 11.50  | 15.25  | 19.00  | 22.75  | 26.50  | 30.25  |
| Dim. "B"                | 3.625 | 7.375 | 11.125 | 14.875 | 18.625 | 22.375 | 26.125 | 29.875 |
| Dim. "C" <sup>2</sup>   | -     | -     | -      | -      | -      | 11.125 | 14.875 | 14.875 |
| Dim. "D"                | -     | -     | 7.625  | 11.375 | 15.125 | 18.875 | 22.625 | 26.375 |
| Dim. "E" <sup>2</sup>   | -     | -     | -      | -      | -      | 11.563 | 11.375 | 15.312 |
| Approx. Weight DI (lbs) | 17    | 33    | 49     | 65     | 82     | 98     | 114    | 130    |

Ports conform to ISO 6149-1: 1993, Connections for Fluid Power and General Use – Ports and Stud Ends with ISO 261 Threads and O-Ring Sealing – Part 1: Ports with O-Ring Seal in Truncated Housing

1) Blackening      2) Third Pair of Mounting Holes

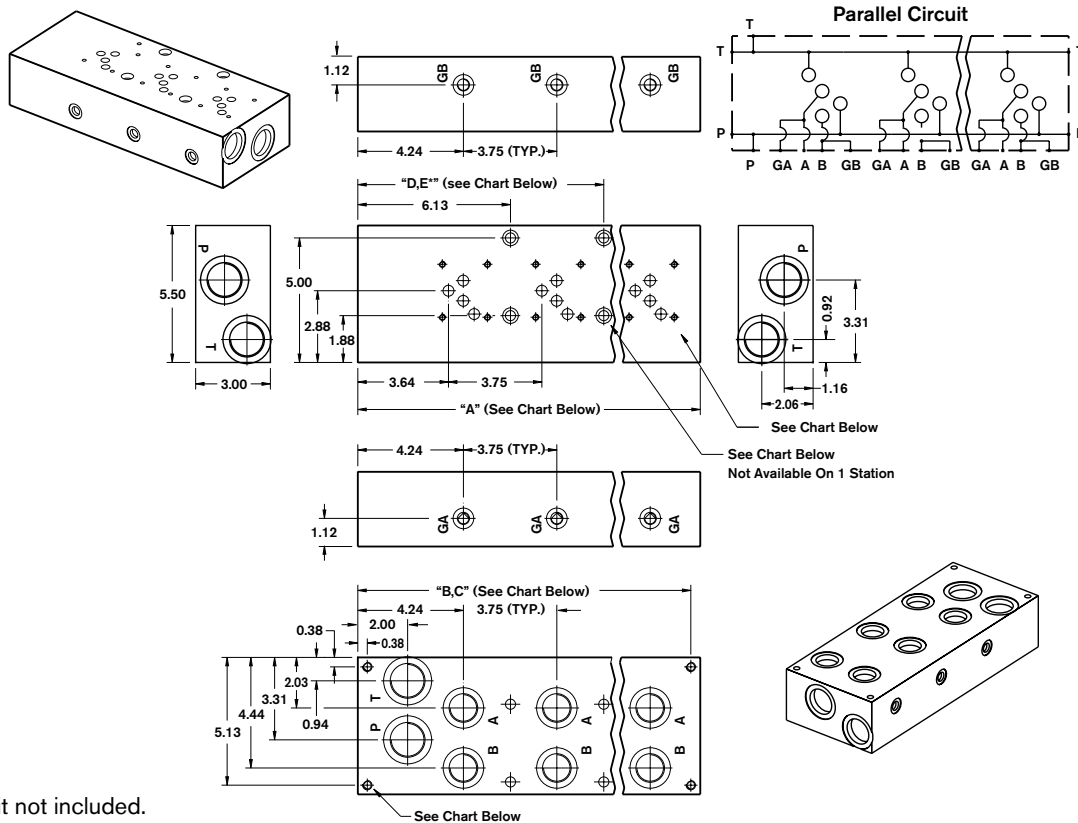
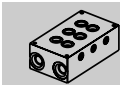
All dimensions in inches



# Bar Manifold D05 (Size 10) Parallel Circuit Normal Flow with Bottom-Ported P & T

|         |        |  |  |   |  |   |   |  |
|---------|--------|--|--|---|--|---|---|--|
| ABM10PN | - XX / |  |  | 3 |  | G | B |  |
|---------|--------|--|--|---|--|---|---|--|

|  |         |  |  |  |  |  |  |        |                         |
|--|---------|--|--|--|--|--|--|--------|-------------------------|
| <b>Revision</b>                              | = XX    |  |  |  |  |  |  | Omit = | UNC Mounting Taps       |
| <b>Number of Station</b>                     | = 01-08 |  |  |  |  |  |  | M =    | Metric Mounting Taps    |
| <b>Material</b>                              |         |  |  |  |  |  |  |        | BSPP Ports only         |
| Aluminum 6061-T6, 300 psi                    | = A     |  |  |  |  |  |  | B =    | Bottom Ported P and T   |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi | = D     |  |  |  |  |  |  | G =    | Gauge Ports for A and B |
| <b>Valve Spacing 3.75"</b>                   | = 3     |  |  |  |  |  |  |        |                         |
| SAE Threaded Ports                           |         |  |  |  |  |  |  |        | = 12                    |
| BSPP Threaded Ports                          |         |  |  |  |  |  |  |        | = 01                    |



Mounting kit not included.

|         | P & T Ports      | A & B Ports      | GA & GB Ports | Manifold (Mtg.)   | Valve (Mtg.)      | Thru (Mtg.) |
|---------|------------------|------------------|---------------|-------------------|-------------------|-------------|
| ...12G  | 1-5/16-12 SAE-16 | 1-1/16-12 SAE-12 | 7/16-20 SAE-4 | 3/8-16 x 0.75 DP. | 1/4-20 x 0.60 DP. | 3/8" SHCS   |
| ...01GM | 1" BSPP          | 3/4" BSPP        | 1/4" BSPP     | M10 x 0.60 DP.    | M6 x 0.60 DP.     | M10" SHCS   |

| Number of Stations      | 01    | 02    | 03     | 04     | 05     | 06     | 07     | 08     |
|-------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| Dim. "A"                | 6.25  | 10.00 | 13.75  | 17.50  | 21.25  | 25.00  | 28.75  | 32.50  |
| Dim. "B"                | 5.875 | 9.625 | 13.375 | 17.125 | 20.875 | 24.625 | 28.375 | 32.125 |
| Dim. "C" <sup>2</sup>   | -     | -     | -      | -      | -      | 13.125 | 13.125 | 16.875 |
| Dim. "D"                | -     | -     | 9.875  | 13.625 | 17.375 | 21.125 | 24.875 | 28.625 |
| Dim. "E" <sup>2</sup>   | -     | -     | -      | -      | -      | 13.812 | 13.812 | 17.562 |
| Approx. Weight DI (lbs) | 27    | 43    | 59     | 75     | 91     | 107    | 123    | 139    |
| Approx. Weight AL (lbs) | 10    | 16    | 22     | 28     | 34     | 40     | 46     | 52     |

1) Blackening

2) Third Pair of Mounting Holes

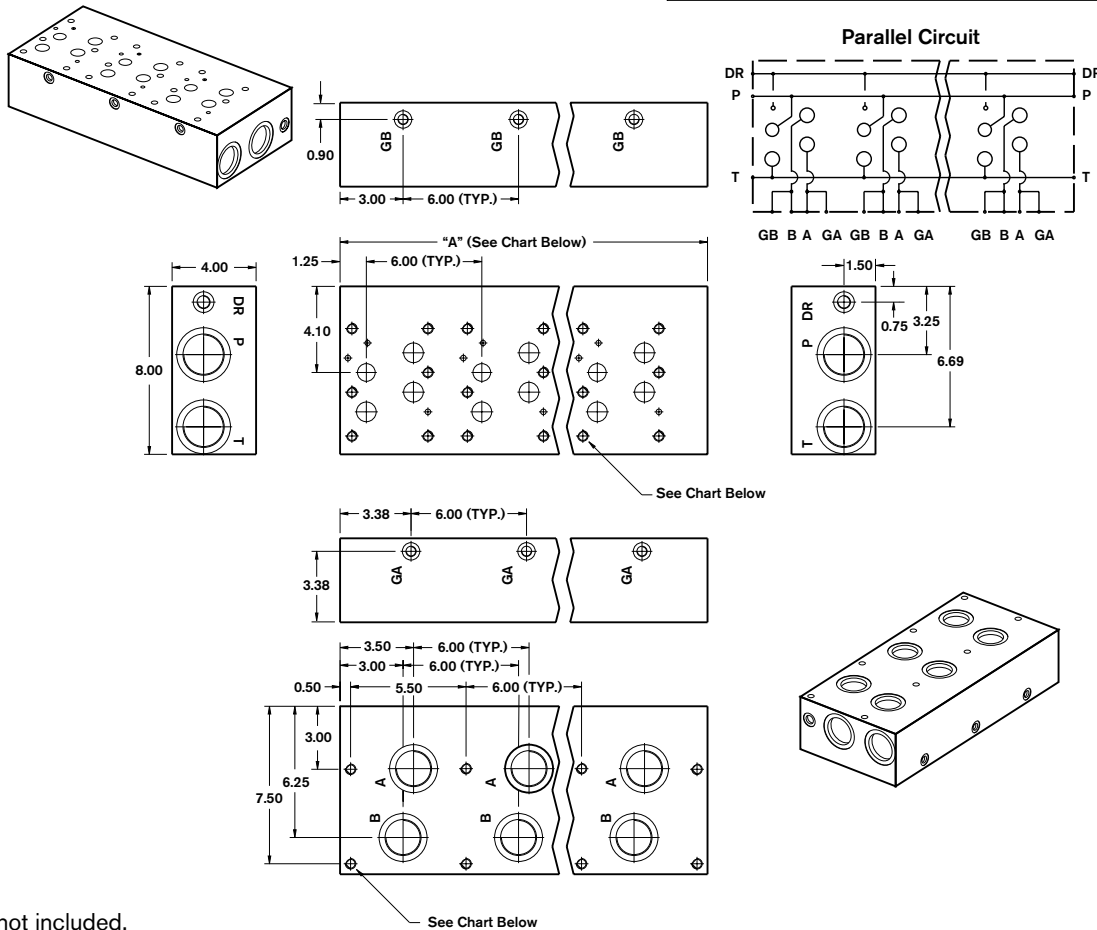
All dimensions in inches

# Bar Manifold D08 (Size 22/25) Parallel Circuit Normal Flow



**Revision** = XX  
**Number of Station** = 01-08  
**Material** = D  
 Ductile Iron<sup>1</sup> 65-45-12, 5000 psi  
**Valve Spacing 6.0"** = 6

**Omit =** UNC Mounting Taps  
 SAE Mounting  
**M =** Metric Mounting Taps  
 Metric and BSPP Ports only  
**G =** Gauge Ports for A and B  
**12 =** SAE Threaded Ports  
**05 =** NPT Threaded Ports  
**01 =** BSPP Threaded Ports  
**50 =** Metric Threaded Ports



Mounting kit not included.

|         | P & T Ports     | A & B Ports     | GA & GB Ports | DR Ports      | Manifold (Mtg.)   | Valve (Mtg.)      |
|---------|-----------------|-----------------|---------------|---------------|-------------------|-------------------|
| ...12G  | 1-7/8-12 SAE-24 | 1 5/8-12 SAE-20 | 7/16-20 SAE-4 | 9/16-18 SAE-6 | 1/2-13 x 0.80 DP. | 1/2-13 x 1.00 DP. |
| ...01GM | 1-1/2" BSPP     | 1-1/4" BSPP     | 1/4" BSPP     | 1/4" BSPP     | M12 x 0.80 DP.    | M12 x 0.80 DP.    |
| ...05G  | 1-1/2" NPT      | 1-1/4" NPT      | 1/4" NPT      | 1/4" NPT      | 1/2-13 x 0.80 DP. | 1/2-13 x 1.00 DP. |
| ...50GM | M48             | M42             | M10           | M10           | M12 x 0.80 DP.    | M12 x 0.80 DP.    |

| Number of Stations      | 01   | 02    | 03    | 04   | 05   | 06   | 07   | 08   |
|-------------------------|------|-------|-------|------|------|------|------|------|
| Dim. "A"                | 6.50 | 12.50 | 18.50 | 24.5 | 30.5 | 36.5 | 42.5 | 48.5 |
| Approx. Weight DI (lbs) | 54   | 104   | 153   | 203  | 253  | 303  | 353  | 403  |

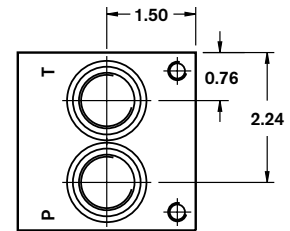
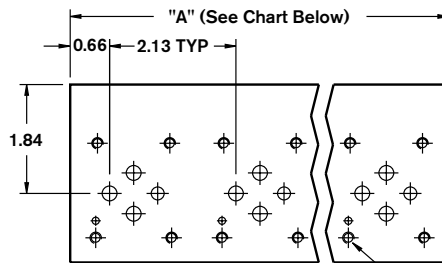
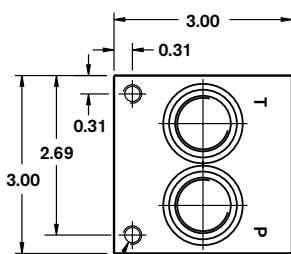
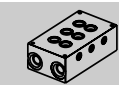
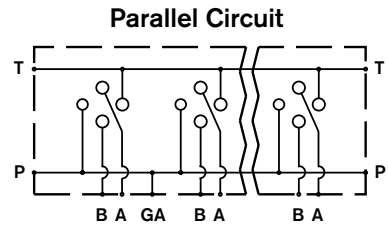
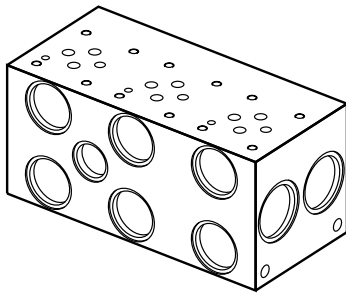
1) Blackening

All dimensions in inches

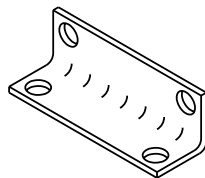
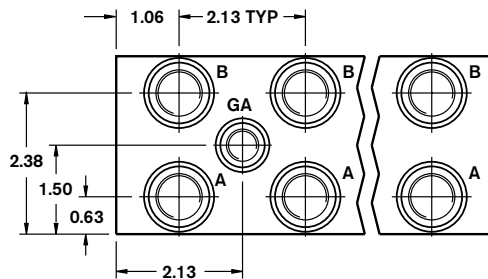
# ISO Bar Manifold D03 (Size 6) Parallel Circuit Normal Flow



|  |         |      |                       |
|--|---------|------|-----------------------|
| Revision                                     | = XX    | M =  | Metric Mounting Taps  |
| Number of Station                            | = 01-08 | 50 = | Metric Threaded Ports |
| Material                                     | = D     |      | P & T: M22 x 1.5      |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi |         |      | A & B: M18 x 1.5      |
| Valve Spacing 2.125"                         | = 2     |      | GA: M12 x 1.5         |



M5 x 0.8 - 0.50 DP. (TYP.)



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

| Number of Stations      | 01 <sup>2</sup> | 02   | 03   | 04   | 05    | 06    | 07    | 08    |
|-------------------------|-----------------|------|------|------|-------|-------|-------|-------|
| Dim. "A"                | 2.13            | 4.25 | 6.38 | 8.50 | 10.63 | 12.75 | 14.88 | 17.00 |
| Approx. Weight DI (lbs) | 5               | 10   | 15   | 20   | 25    | 30    | 35    | 40    |

Ports conform to ISO 6149-1: 1993, Connections for Fluid Power and General Use – Ports and Stud Ends with ISO 261 Threads and O-Ring Sealing

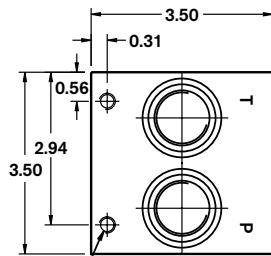
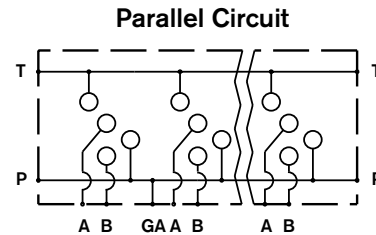
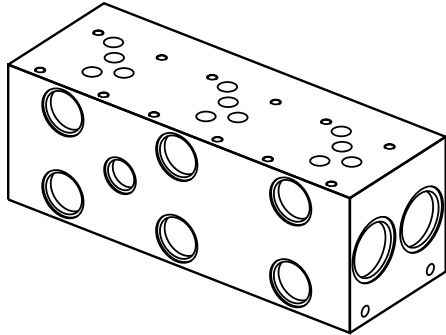
1) Blackening 2) Gauge port not included

All dimensions in inches

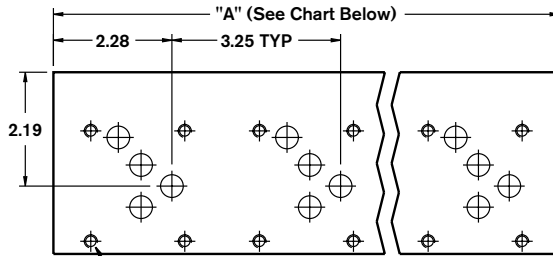
# ISO Bar Manifold D05 (Size 10) Parallel Circuit Normal Flow

IBM10PN - XX / D 3 - 50 M

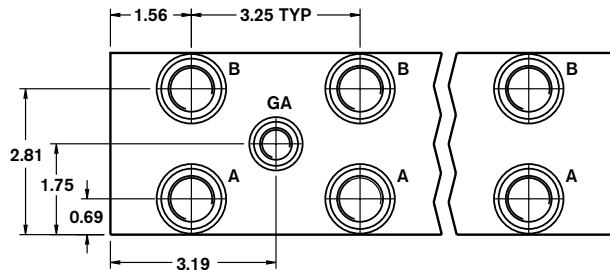
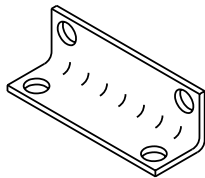
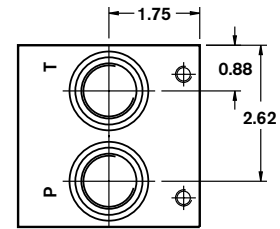
|  |         |      |                       |
|--|---------|------|-----------------------|
| Revision                                     | = XX    | M =  | Metric Mounting Taps  |
| Number of Station                            | = 01-08 | 50 = | Metric Threaded Ports |
| Material                                     | = D     |      | P & T: M27 x 2        |
| Ductile Iron <sup>1</sup> 65-45-12, 5000 psi |         |      | A & B: M18 x 1.5      |
| Valve Spacing 3.25"                          | = 3     |      | GA: M12 x 1.5         |



(2) M8 x .60 DP.



M6 x 1.0 - 0.60 DP. (TYP.)



Mounting kit included, see Page 29 for details.

Additional mounting accessories available on Page 30.

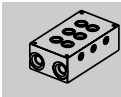
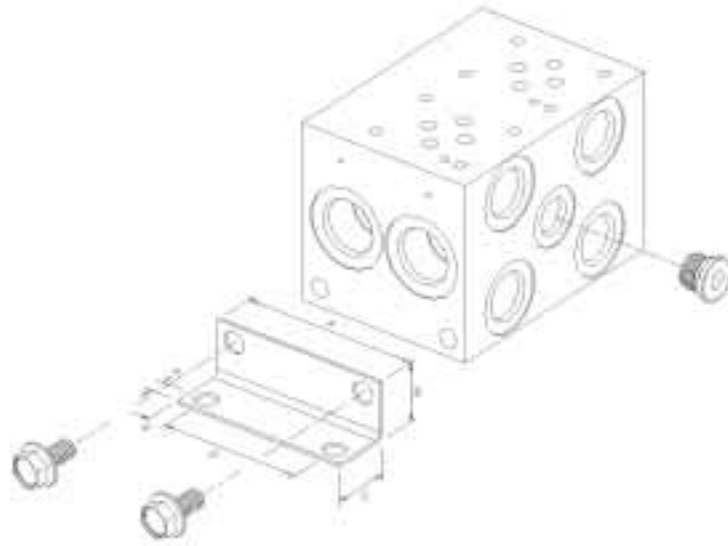
| Number of Stations      | 01 <sup>2</sup> | 02   | 03   | 04    | 05    | 06    | 07    | 08    |
|-------------------------|-----------------|------|------|-------|-------|-------|-------|-------|
| Dim. "A"                | 3.25            | 6.50 | 9.75 | 13.00 | 16.25 | 19.50 | 22.75 | 26.00 |
| Approx. Weight DI (lbs) | 10              | 21   | 31   | 41    | 52    | 62    | 72    | 83    |

Ports conform to ISO 6149-1: 1993, Connections for Fluid Power and General Use – Ports and Stud Ends with ISO 261 Threads and O-Ring Sealing

1) Blackening 2) Gauge port not included

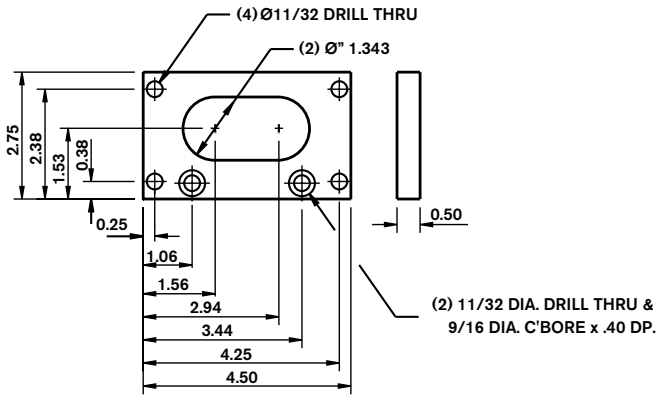
All dimensions in inches

## Manifold Mounting Hardware Accessories (Included with BM assemblies)



| Size | Flow   | Port Style   | Mounting Kit   | A    | B    | C    | D    | E    | F    | Gauge Port (1) Plug                          | Mtg. Screws (8) Hex HD Washer Bolt                             | Bracket   |
|------|--------|--|--|------|------|------|------|------|------|--|--|---|
| D03  | Normal | ...12 SAE<br>...05 NPT<br>...01 BSPP<br>...50 Metric | R978839831<br>R978917127<br>R978915774<br>R978902527 | 3.00 | 1.00 | 1.00 | 2.38 | 0.31 | 0.28 | -6 SAE<br>1/4" NPT<br>1/4" BSPP<br>M12 x 1.5 | UNC 5/16-18 x 0.50<br>UNC 5/16-18 x 0.50<br>M8 x 12<br>M8 x 12 | (2)<br>Bracket,<br>CS Yellow<br>Chromate<br>Plate |
|      | High   | ...12 SAE<br>...01 BSPP                              | R978906094<br>R978910319                             | 4.00 | 1.00 | 1.00 | 3.38 | 0.31 | 0.28 | -6 SAE<br>1/4" BSPP                          | UNC 5/16-18 x 0.50<br>M8 x 12                                  |   |
| D05  | Normal | ...12 SAE<br>...05 NPT<br>...01 BSPP<br>...50 Metric | R978839832<br>R978917413<br>R978915775<br>R978902528 | 3.00 | 1.00 | 1.00 | 2.38 | 0.31 | 0.28 | -6 SAE<br>1/4" NPT<br>1/4" BSPP<br>M12 x 1.5 | UNC 5/16-18 x 0.50<br>UNC 5/16-18 x 0.50<br>M8 x 12<br>M8 x 12 |   |
|      | High   | ...12 SAE<br>...01 BSPP                              | R978906095<br>R978910315                             | 5.00 | 1.38 | 1.38 | 4.13 | 0.44 | 0.28 | -6 SAE<br>1/4" BSPP                          | UNC 3/8-16 x 0.75<br>M10 x 16                                  |   |
| D07  | Normal | ...12 SAE<br>...01 BSPP                              | R978915619<br>R978915620                             | 5.00 | 1.38 | 1.38 | 4.13 | 0.44 | 0.28 | -6 SAE<br>1/4" BSPP                          | UNC 3/8-16 x 0.75<br>M10 x 16                                  |   |
|      | High   | ...12 SAE<br>...01 BSPP                              | R978915621<br>R978915622                             | 6.00 | 1.63 | 1.63 | 4.88 | 0.56 | 0.56 | -6 SAE<br>1/4" BSPP                          | UNC 3/8-16 x 0.75<br>M10 x 16                                  |   |
| D08  | Normal | ...12 SAE<br>...01 BSPP                              | R978915500<br>R978915623                             | 6.00 | 1.63 | 1.63 | 4.88 | 0.56 | 0.56 | -6 SAE<br>1/4" BSPP                          | UNC 1/2-13 x 0.75<br>M12 x 16                                  |   |

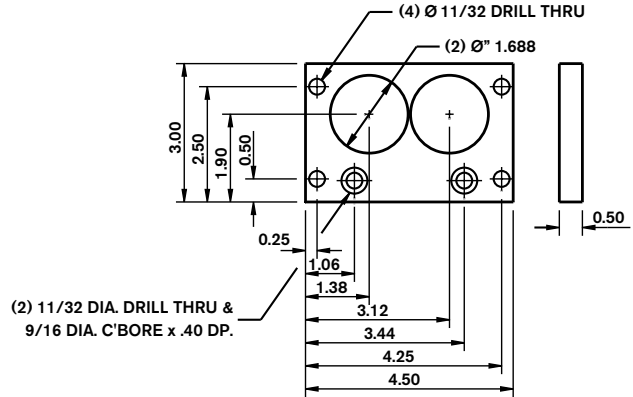
**D03 (Size 6) Normal Flow  
Mounting Flange Kit  
Part No. R978839937**



**Mounting Flange Kit consists of**

| Item | Description         | Part No.   | Quantity |
|------|---------------------|------------|----------|
| 1    | AL. Mounting Flange | R978813641 | 1        |
| 2    | SHCS 5/16-18 x 1/2  | R978801129 | 2        |
| 3    | SHCS 5/16-18 x 1    | R978800726 | 4        |

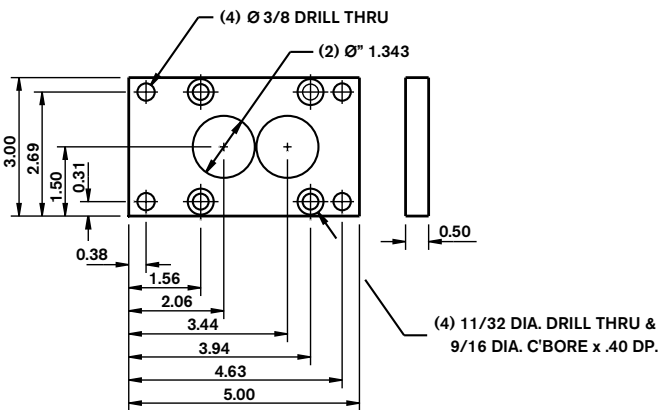
**D05 (Size 10) Normal Flow  
Mounting Flange Kit  
Part No. R978839938**



**Mounting Flange Kit consists of**

| Item | Description         | Part No.   | Quantity |
|------|---------------------|------------|----------|
| 1    | AL. Mounting Flange | R978813642 | 1        |
| 2    | SHCS 5/16-18 x 12   | R978801129 | 2        |
| 3    | SHCS 5/16-18 x 1    | R978800726 | 4        |

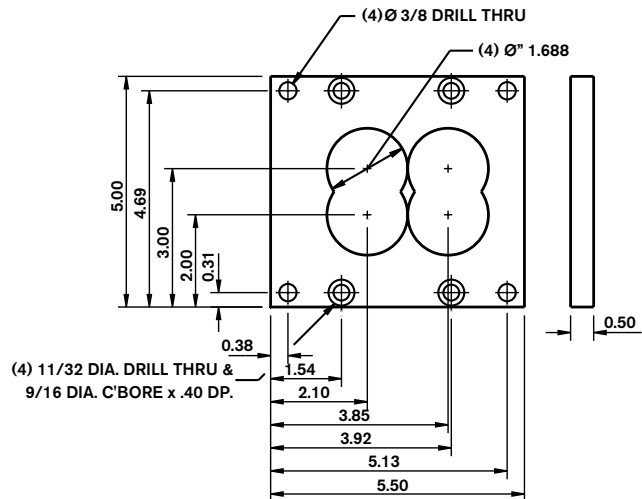
**D03 (Size 6) Normal Flow (RCR)  
Mounting Flange Kit**



**Mounting Flange Kit consists of**

| Item | Description         | Part No.   | Quantity |
|------|---------------------|------------|----------|
| 1    | AL. Mounting Flange | R978812808 | 1        |
| 2    | SHCS 5/16-18 x 5/8  | R978801130 | 6        |

**D05 (Size 10) Normal Flow (RCR)  
Mounting Flange Kit**



**Mounting Flange Kit consists of**

| Item | Description         | Part No.   | Quantity |
|------|---------------------|------------|----------|
| 1    | AL. Mounting Flange | R978812809 | 1        |
| 2    | SHCS 5/16-18 x 5/8  | R978801130 | 6        |