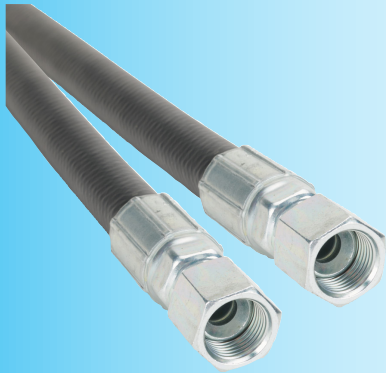




# PROFLEX™ Hydraulic Hoses



## Overview

Gates ProFlex hydraulic hose assemblies are lighter and more flexible than many hoses in the industry. Thousands of industrial facilities, global operations and OE manufacturers choose Gates ProFlex hose.

## Features

- Synthetic black rubber
- Reinforced braided steel wire
- Qualified for 200,000 cycles impulse life with MEGACRIMP, PCK, GB (-8, -12 & -16) couplings

Part No. 1/2PFX-24IN-FJXEE

### ProFlex Hydraulic Hoses Selection

| Part No.                  | I.D.<br>in (mm) | O.D.<br>in (mm) | Fitting                                  | Assembly Length (ft) | Weight (lbs) | Price    |
|---------------------------|-----------------|-----------------|------------------------------------------|----------------------|--------------|----------|
| <u>1/4PFX-24IN-FJXEE</u>  | 1/4 (6.3)       | 0.52 (13.2)     | (2) -4 female straight JIC 37° fittings  | 2                    | 0.60         | \$29.00  |
| <u>1/4PFX-48IN-FJXEE</u>  |                 |                 |                                          | 4                    | 0.96         | \$33.00  |
| <u>1/4PFX-72IN-FJXEE</u>  |                 |                 |                                          | 6                    | 1.31         | \$37.00  |
| <u>1/4PFX-96IN-FJXEE</u>  |                 |                 |                                          | 8                    | 1.67         | \$42.00  |
| <u>1/4PFX-120IN-FJXEE</u> |                 |                 |                                          | 10                   | 2.02         | \$46.00  |
| <u>3/8PFX-24IN-FJXEE</u>  | 3/8 (9.5)       | 0.65 (16.5)     | (2) -6 female straight JIC 37° fittings  | 2                    | 0.86         | \$33.00  |
| <u>3/8PFX-48IN-FJXEE</u>  |                 |                 |                                          | 4                    | 1.34         | \$39.00  |
| <u>3/8PFX-72IN-FJXEE</u>  |                 |                 |                                          | 6                    | 1.82         | \$44.00  |
| <u>3/8PFX-96IN-FJXEE</u>  |                 |                 |                                          | 8                    | 2.30         | \$50.00  |
| <u>3/8PFX-120IN-FJXEE</u> |                 |                 |                                          | 10                   | 2.79         | \$55.00  |
| <u>1/2PFX-24IN-FJXEE</u>  | 1/2 (12.7)      | 0.81 (20.5)     | (2) -8 female straight JIC 37° fittings  | 2                    | 1.26         | \$42.00  |
| <u>1/2PFX-48IN-FJXEE</u>  |                 |                 |                                          | 4                    | 1.91         | \$49.00  |
| <u>1/2PFX-72IN-FJXEE</u>  |                 |                 |                                          | 6                    | 2.62         | \$55.00  |
| <u>1/2PFX-96IN-FJXEE</u>  |                 |                 |                                          | 8                    | 3.16         | \$61.00  |
| <u>1/2PFX-120IN-FJXEE</u> |                 |                 |                                          | 10                   | 3.87         | \$68.00  |
| <u>3/4PFX-24IN-FJXEE</u>  | 3/4 (19.0)      | 1.08 (27.4)     | (2) -12 female straight JIC 37° fittings | 2                    | 2.18         | \$81.00  |
| <u>3/4PFX-48IN-FJXEE</u>  |                 |                 |                                          | 4                    | 3.24         | \$91.00  |
| <u>3/4PFX-72IN-FJXEE</u>  |                 |                 |                                          | 6                    | 4.20         | \$102.00 |
| <u>3/4PFX-96IN-FJXEE</u>  |                 |                 |                                          | 8                    | 5.32         | \$113.00 |
| <u>3/4PFX-120IN-FJXEE</u> |                 |                 |                                          | 10                   | 7.74         | \$124.00 |

### ProFlex Hydraulic Hose Specifications

| Hose Size | DIN (Ref) | Working Pressure<br>PSI (MPa) | Burst Pressure<br>PSI (MPa) | Min. Bend Radius<br>in (mm) |
|-----------|-----------|-------------------------------|-----------------------------|-----------------------------|
| -4        | 6         | 5,800 (39.9)                  | 23,000 (160.0)              | 1.9 (48.2)                  |
| -6        | 10        | 4,800 (33.1)                  | 19,200 (132.4)              | 2.5 (64.0)                  |
| -8        | 12        | 4,000 (27.6)                  | 16,000 (110.3)              | 3.5 (88.9)                  |
| -12       | 19        | 3,125 (21.5)                  | 12,500 (86.2)               | 4.7 (119.3)                 |



# Hydraulic Hoses - Overview



Gates hoses and fittings are some of the best in the industry. Royal Brass and Hose is a leading manufacturer of Gates hose assemblies in the USA. AutomationDirect.com offers both the ProFlex™ and MXT™ lines of hoses, both with Gates Megacrimp fittings. Adapters are nickel-plated steel and come in straight or 90° elbows. JIC, o-ring boss and o-ring face connection styles are available.

## Features

- Hose diameters from 1/4 inch (-4 size) to 3/4 inch (-12 size)
- Assembly lengths from 2 feet to 10 feet
- Straight female JIC swivel fittings on both ends
- Meets or exceeds SAE 100R2/EN 857 2SC/EN 853 2SN, SAE 100R16, SAE 100R17
- ProFlex tested to 200,000 cycles
- MXT tested to **600,000** cycles
- All Requirements as per SAE J514 & 6149-3

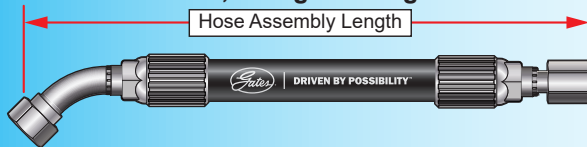
### Straight Fittings Each End



### 90° One End, Straight Fitting Other End



### 45° One End, Straight Fitting Other End



## Applications

- Manufacturing
- Machine tools
- Machinery
- Construction
- Mining
- Agriculture

### SAE Thread Identification

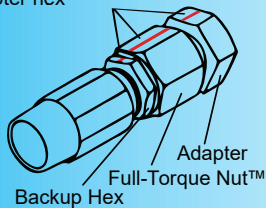
| Fitting Size | Dash Size | Thread Size |
|--------------|-----------|-------------|
| SAE 4        | -04       | 7/16-20     |
| SAE 5        | -05       | 1/2-20      |
| SAE 6        | -06       | 9/16-18     |
| SAE 8        | -08       | 3/4-16      |
| SAE 10       | -10       | 7/8-14      |
| SAE 12       | -12       | 1 1/16-12   |

### Flats Method Installation

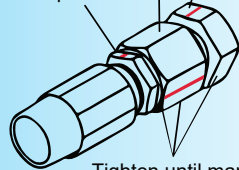
| Termination Type | Dash Size<br>1/16 in | Flats      |
|------------------|----------------------|------------|
| JIC              | -04                  | 1.5 - 1.75 |
|                  | -06                  | 1.0 - 1.5  |
|                  | -08                  | 1.5 - 1.75 |
|                  | -10                  | 1.0 - 1.5  |
|                  | -12                  |            |

## Fitting and Adapter Installation: Flats Method

Once hand-tight, mark a straight line between the backup hex, nut and adapter hex



Adapter  
Full-Torque Nut  
Backup Hex



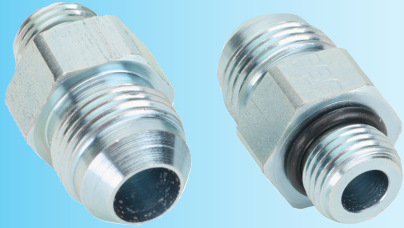
Tighten until marks are misaligned by the specified values; this example is two flats. The backup hex mark should align with the adapter mark.

### NOTE:

1. Seal faces must be in contact and the fitting fully hand-tightened before marking flats
2. Flats method is the most accurate for the first assembly cycle; for multiple disassembly/assembly cycles, torque values are more reliable
3. Tightening two flats or more is equivalent to severe over-torque and may damage seal faces

| Dash Size | JIC 37° (Steel) |     | Flat Face O-Ring Seal (Steel) |     | SAE O-Ring Boss (Steel) & Gates Adapterless ≤ 4000PSI |     |
|-----------|-----------------|-----|-------------------------------|-----|-------------------------------------------------------|-----|
| 1/16 in   | LB-FT           |     | LB-FT                         |     | LB-FT                                                 |     |
|           | Min             | Max | Min                           | Max | Min                                                   | Max |
| -04       | 11              | 14  | 18                            | 23  | 13                                                    | 17  |
| -06       | 18              | 22  | 29                            | 37  | 22                                                    | 28  |
| -08       | 36              | 45  | 41                            | 51  | 37                                                    | 46  |
| -10       | 57              | 71  | 44                            | 55  | 44                                                    | 55  |
| -12       | 79              | 99  | 66                            | 83  | 70                                                    | 88  |

# HY-TECH Hydraulic Threaded Adapters



Part No. 8MJ-6MB

## Overview

Hydraulic threaded adapters are used to connect hoses to valves, actuators or manifolds.

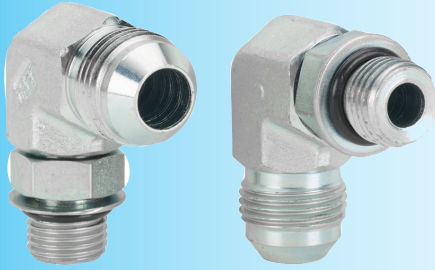
## Features

- Plated steel body
- All Requirements as per SAE J514 & 6149-3

### HY-TECH Hydraulic JIC to O-ring Boss Straight Adapters Selection

| Part No.         | Connection 1<br>(Male JIC) | Connection 2<br>(Male O-ring boss) | Max. Temp.       | Max.<br>Pressure | Qty./pack | Weight (lbs) | Price   |
|------------------|----------------------------|------------------------------------|------------------|------------------|-----------|--------------|---------|
| <u>4MJ-4MB</u>   | -4                         | -4                                 | 212°F<br>(100°C) | 5,000 psi        | 2         | 0.10         | \$3.75  |
| <u>4MJ-6MB</u>   |                            | -6                                 |                  |                  | 2         | 0.14         | \$4.75  |
| <u>4MJ-8MB</u>   |                            | -8                                 |                  |                  | 2         | 0.23         | \$6.50  |
| <u>6MJ-4MB</u>   | -6                         | -4                                 |                  |                  | 2         | 0.12         | \$4.50  |
| <u>6MJ-6MB</u>   |                            | -6                                 |                  |                  | 2         | 0.14         | \$4.25  |
| <u>6MJ-8MB</u>   |                            | -8                                 |                  |                  | 2         | 0.24         | \$6.25  |
| <u>6MJ-10MB</u>  |                            | -10                                |                  |                  | 2         | 0.36         | \$8.50  |
| <u>8MJ-6MB</u>   | -8                         | -6                                 |                  | 4,500 psi        | 2         | 0.22         | \$6.00  |
| <u>8MJ-8MB</u>   |                            | -8                                 |                  |                  | 2         | 0.27         | \$6.50  |
| <u>8MJ-10MB</u>  |                            | -10                                |                  |                  | 2         | 0.36         | \$8.75  |
| <u>8MJ-12MB</u>  |                            | -12                                |                  |                  | 2         | 0.60         | \$11.00 |
| <u>10MJ-8MB</u>  | -10                        | -8                                 |                  | 3,500 psi        | 2         | 0.38         | \$8.50  |
| <u>10MJ-10MB</u> |                            | -10                                |                  |                  | 2         | 0.40         | \$9.00  |
| <u>12MJ-8MB</u>  | -12                        | -8                                 |                  |                  | 2         | 0.60         | \$12.00 |
| <u>12MJ-10MB</u> |                            | -10                                |                  |                  | 2         | 0.56         | \$12.00 |
| <u>12MJ-12MB</u> |                            | -12                                |                  |                  | 2         | 0.67         | \$12.00 |
| <u>12MJ-16MB</u> |                            | -16                                |                  |                  | 2         | 0.93         | \$19.00 |

# HY-TECH Hydraulic Threaded Adapters



Part No. [8MJ-6MB90](#)

## Overview

Hydraulic threaded adapters are used to connect hoses to valves, actuators or manifolds.

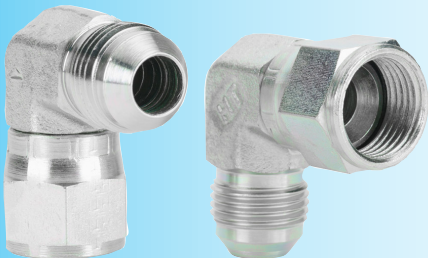
## Features

- Plated steel body
- All Requirements as per SAE J514 & 6149-3

### HY-TECH Hydraulic JIC to O-ring Boss Elbow Adapters Selection

| Part No.                    | Connection 1<br>(Male JIC) | Connection 2<br>(Male O-ring boss) | Max.<br>Temp.    | Max.<br>Pressure | Qty./pack | Weight<br>(lbs) | Price   |
|-----------------------------|----------------------------|------------------------------------|------------------|------------------|-----------|-----------------|---------|
| <a href="#">4MJ-4MB90</a>   | -4                         | -4                                 | 212°F<br>(100°C) | 5,000 psi        | 2         | 0.14            | \$8.25  |
| <a href="#">4MJ-6MB90</a>   |                            | -6                                 |                  |                  | 2         | 0.24            | \$9.25  |
| <a href="#">4MJ-8MB90</a>   |                            | -8                                 |                  |                  | 2         | 0.45            | \$14.50 |
| <a href="#">6MJ-4MB90</a>   | -6                         | -4                                 |                  |                  | 2         | 0.23            | \$10.00 |
| <a href="#">6MJ-6MB90</a>   |                            | -6                                 |                  |                  | 2         | 0.23            | \$8.00  |
| <a href="#">6MJ-8MB90</a>   |                            | -8                                 |                  |                  | 2         | 0.45            | \$12.50 |
| <a href="#">6MJ-10MB90</a>  |                            | -10                                |                  |                  | 2         | 0.68            | \$18.00 |
| <a href="#">8MJ-6MB90</a>   | -8                         | -6                                 |                  | 4,500 psi        | 2         | 0.41            | \$11.50 |
| <a href="#">8MJ-8MB90</a>   |                            | -8                                 |                  |                  | 2         | 0.48            | \$13.00 |
| <a href="#">8MJ-10MB90</a>  |                            | -10                                |                  |                  | 2         | 0.72            | \$16.00 |
| <a href="#">8MJ-12MB90</a>  |                            | -12                                |                  |                  | 2         | 1.16            | \$24.50 |
| <a href="#">10MJ-8MB90</a>  | -10                        | -8                                 |                  | 3,500 psi        | 2         | 0.66            | \$17.00 |
| <a href="#">10MJ-10MB90</a> |                            | -10                                |                  |                  | 2         | 0.75            | \$17.00 |
| <a href="#">10MJ-12MB90</a> |                            | -12                                |                  |                  | 2         | 1.19            | \$28.00 |
| <a href="#">12MJ-8MB90</a>  | -12                        | -8                                 |                  |                  | 2         | 1.02            | \$32.50 |
| <a href="#">12MJ-10MB90</a> |                            | -10                                |                  |                  | 2         | 1.07            | \$24.50 |
| <a href="#">12MJ-12MB90</a> |                            | -12                                |                  |                  | 2         | 1.21            | \$22.50 |

# HY-TECH Hydraulic Threaded Adapters



Part No. [8MJ-8FJX90](#)

## Overview

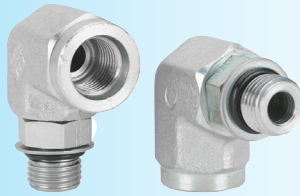
Hydraulic threaded adapters are used to connect hoses to valves, actuators or manifolds.

## Features

- Plated steel body
- All Requirements as per SAE J514 & 6149-3

| HY-TECH Hydraulic Elbow JIC to JIC Adapters Selection |                            |                              |                    |                  |                   |              |         |
|-------------------------------------------------------|----------------------------|------------------------------|--------------------|------------------|-------------------|--------------|---------|
| Part No.                                              | Connection 1<br>(Male JIC) | Connection 2<br>(Female JIC) | Max.<br>Temp.      | Max.<br>Pressure | Qty./pack         | Weight (lbs) | Price   |
| <a href="#">4MJ-4FJX90</a>                            | -4                         | -4                           | 250°F<br>(121.1°C) | 5,000 psi        | 2                 | 0.14         | \$9.50  |
| <a href="#">6MJ-6FJX90</a>                            | -6                         | -6                           |                    |                  | 2                 | 0.23         | \$11.00 |
| <a href="#">8MJ-8FJX90</a>                            | -8                         | -8                           |                    | 4,500 psi        | <a href="#">2</a> | 0.44         | \$13.00 |
| <a href="#">10MJ-10FJX90</a>                          | -10                        | -10                          |                    | 3,500 psi        | 2                 | 0.64         | \$17.50 |
| <a href="#">12MJ-12FJX90</a>                          | -12                        | -12                          |                    |                  | 2                 | 1.05         | \$26.50 |

# HY-TECH Hydraulic Threaded Adapters

Part No. 8MB-6FBPart No. 6MB-6FB90

## Overview

Hydraulic threaded adapters are used to connect hoses to valves, actuators or manifolds.

## Features

- Plated steel body
- All Requirements as per SAE J514 & 6149-3

Part No. 8MJ-8FFORX

| HY-TECH Hydraulic O-ring Boss Straight Reducer Adapters Selection |                      |                            |                  |               |                          |              |         |
|-------------------------------------------------------------------|----------------------|----------------------------|------------------|---------------|--------------------------|--------------|---------|
| Part No.                                                          | Connection 1         | Connection 2               | Max. Temp.       | Max. Pressure | Qty./pack                | Weight (lbs) | Price   |
| <a href="#"><u>8MB-4FB</u></a>                                    | -8 male o-ring boss  | -4 female o-ring boss      | 212°F<br>(100°C) | 6,000 psi     | 2                        | 0.28         | \$15.50 |
| <a href="#"><u>8MB-6FB</u></a>                                    |                      | -6 female o-ring boss      |                  |               | 2                        | 0.26         | \$7.50  |
| <a href="#"><u>10MB-8FB</u></a>                                   | -10 male o-ring boss | -8 female o-ring boss      |                  | 5,000 psi     | <a href="#"><u>2</u></a> | 0.41         | \$9.00  |
| <a href="#"><u>12MB-8FB</u></a>                                   | -12 male o-ring boss |                            |                  |               | 2                        | 0.42         | \$14.50 |
| <a href="#"><u>12MB-10FB</u></a>                                  |                      | -10 female o-ring boss     |                  |               | 2                        | 0.63         | \$15.00 |
| HY-TECH Hydraulic O-ring Boss Elbow Adapters Selection            |                      |                            |                  |               |                          |              |         |
| <a href="#"><u>4MB-4FB90</u></a>                                  | -4 male o-ring boss  | -4 female o-ring boss      | 212°F<br>(100°C) | 6,000 psi     | 2                        | 0.30         | \$17.50 |
| <a href="#"><u>6MB-6FB90</u></a>                                  | -6 male o-ring boss  | -6 female o-ring boss      |                  |               | 2                        | 0.56         | \$24.50 |
| HY-TECH Hydraulic JIC to Flat Face Adapters Selection             |                      |                            |                  |               |                          |              |         |
| <a href="#"><u>6MJ-6FFORX</u></a>                                 | -6 male JIC 37 deg   | -6 female flat face o-ring | 212°F<br>(100°C) | 6,000 psi     | 2                        | 0.28         | \$13.50 |
| <a href="#"><u>8MJ-8FFORX</u></a>                                 | -8 male JIC 37 deg   | -8 female flat face o-ring |                  |               | 2                        | 0.48         | \$18.00 |