

# IRB | IRBO | IRBX SERIES

POPPET INTERCHANGE COUPLERS ISO B Interchange

The IRB Series Quick Couplings are interchangeable to ISO B standard (ISO 7241-B). The IRB is offered in three different high quality materials to meet different application challenges—IRB carbon steel with Nitrile seals, IRBO brass with Viton seals, and IRBX 316 stainless steel with Viton seals. The entire series features compact design, AISI 302 stainless steel springs, and PTFE anti-extrusion rings.

Repair Kits, Protective Caps & Plugs – page 97



## FEATURES

**Size range:** 1/4" thru 1"

**Port options:** NPT, BSP

**Interchanges** with ISO B, Parker 60, Aeroquip FD45, Faster HNV

**IRB working pressure:**

18-35 MPa/4000-5075 psi range

**IRBO working pressure:**

10-20 MPa/1450-2900 psi range

**IRBX working pressure:**

12.5-25 MPa/1813-3625 psi range

## APPLICATIONS

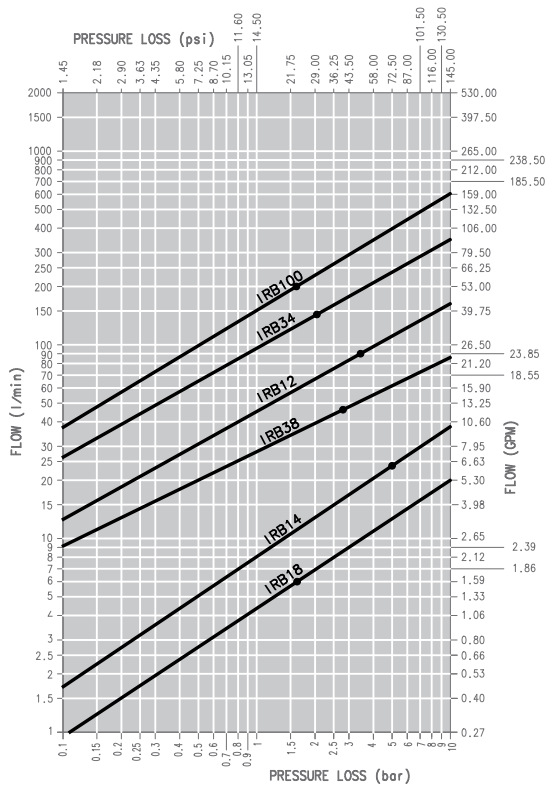
Anywhere a compact size and high quality material are required

Industrial process applications, agricultural equipment, oil & gas industry

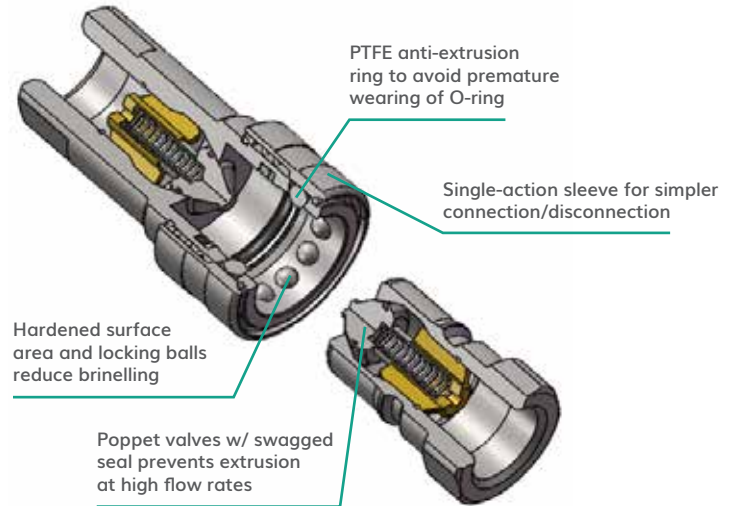




## PRESSURE DROP



OIL = ISO VG32, TEMP = 40C, VISCOSITY = 28.8-35.2 MM<sup>2</sup>/S



POPPET INTERCHANGE COUPLERS

## PERFORMANCE

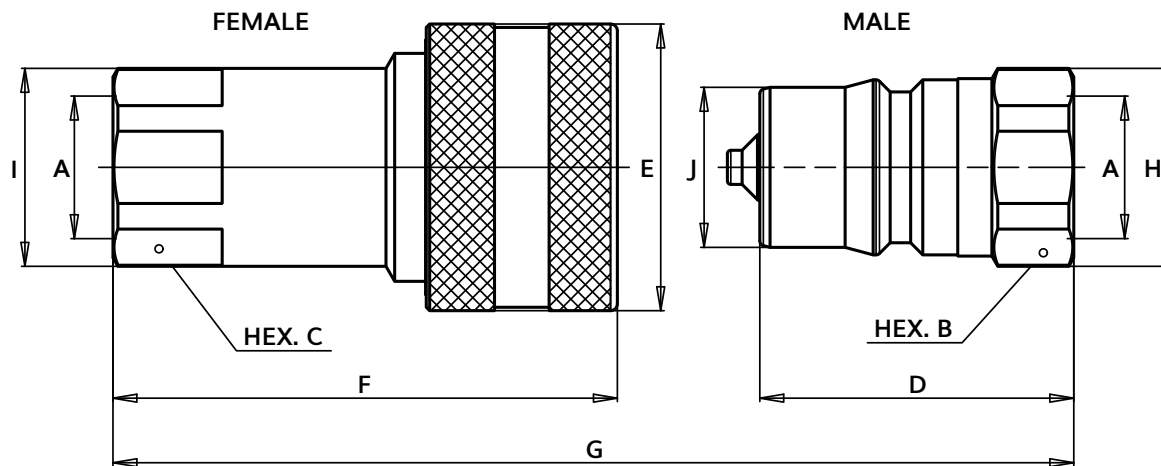
| DESCRIPTION                           | SIZE | ISO SIZE | MAX. OPERATING PRESSURE COUPLED |      | COUPLED |       | BURST PRESSURE |        | SPILLAGE* |       |       |
|---------------------------------------|------|----------|---------------------------------|------|---------|-------|----------------|--------|-----------|-------|-------|
|                                       |      |          | MPa                             | psi  | MPa     | psi   | MALE           | FEMALE | MPa       | psi   | ml    |
| <b>ISO B IRB STEEL</b>                |      |          |                                 |      |         |       |                |        |           |       |       |
| IRB18                                 | 1/8  | 5.0      | 35                              | 5075 | 120     | 17400 | 120            | 17400  | 120       | 17400 | 0.18  |
| IRB14                                 | 1/4  | 6.3      | 35                              | 5075 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 0.33  |
| IRB38                                 | 3/8  | 10.0     | 30                              | 4350 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 2.20  |
| IRB12                                 | 1/2  | 12.5     | 28                              | 4060 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 3.00  |
| IRB34                                 | 3/4  | 20.0     | 23                              | 4000 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 9.40  |
| IRB100                                | 1    | 25.0     | 18                              | 4000 | 80      | 11600 | 80             | 11600  | 80        | 11600 | 14.00 |
| <b>ISO B IRBO BRASS</b>               |      |          |                                 |      |         |       |                |        |           |       |       |
| IRBO18                                | 1/8  | 5.0      | 20                              | 2900 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 0.18  |
| IRBO14                                | 1/4  | 6.3      | 20                              | 2900 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 0.33  |
| IRBO38                                | 3/8  | 10.0     | 16                              | 2320 | 80      | 11600 | 70             | 10150  | 80        | 11600 | 2.20  |
| IRBO12                                | 1/2  | 12.5     | 16                              | 2320 | 80      | 11600 | 70             | 10150  | 80        | 11600 | 3.00  |
| IRBO34                                | 3/4  | 20.0     | 12,5                            | 1813 | 60      | 8700  | 45             | 6525   | 60        | 8700  | 9.40  |
| IRBO100                               | 1    | 25.0     | 10                              | 1450 | 40      | 5800  | 40             | 5800   | 40        | 5800  | 14.00 |
| <b>ISO B IRBX 316 STAINLESS STEEL</b> |      |          |                                 |      |         |       |                |        |           |       |       |
| IRBX18                                | 1/8  | 5.0      | 25                              | 3625 | 140     | 20300 | 140            | 20300  | 140       | 20300 | 0.18  |
| IRBX14                                | 1/4  | 6.3      | 25                              | 3625 | 140     | 20300 | 140            | 20300  | 140       | 20300 | 0.33  |
| IRBX38                                | 3/8  | 10.0     | 20                              | 2900 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 2.20  |
| IRBX12                                | 1/2  | 12.5     | 20                              | 2900 | 100     | 14500 | 100            | 14500  | 100       | 14500 | 3.00  |
| IRBX34                                | 3/4  | 20.0     | 16                              | 2320 | 80      | 11600 | 80             | 11600  | 80        | 11600 | 9.40  |
| IRBX100                               | 1    | 25.0     | 12,5                            | 1813 | 60      | 8700  | 60             | 8700   | 60        | 8700  | 14.00 |

\* Spillage is an indicative value of the fluid loss per couple-uncouple cycle.

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## SIZE DIAGRAM



| DESCRIPTION | BODY SIZE | A   | UNIT | B    | C    | D    | E    | F     | G     | H    | I    | J    | UNIT | WEIGHT |        |
|-------------|-----------|-----|------|------|------|------|------|-------|-------|------|------|------|------|--------|--------|
|             |           |     |      |      |      |      |      |       |       |      |      |      |      | MALE   | FEMALE |
| IRB18       | 1/8       | 1/8 | mm   | 14.0 | 14.0 | 30.0 | 23.0 | 48.8  | 60.5  | 15.8 | 15.8 | 10.8 | kg   | 0.018  | 0.068  |
|             |           |     | inch | 0.55 | 0.55 | 1.18 | 0.91 | 1.92  | 2.38  | 0.62 | 0.62 | 0.43 | lb   | 0.04   | 0.15   |
| IRB14       | 1/4       | 1/4 | mm   | 19.0 | 19.0 | 35.0 | 27.0 | 57.0  | 70.7  | 20.8 | 21.2 | 14.2 | kg   | 0.035  | 0.120  |
|             |           |     | inch | 0.75 | 0.75 | 1.38 | 1.06 | 2.24  | 2.78  | 0.82 | 0.83 | 0.56 | lb   | 0.08   | 0.26   |
| IRB38       | 3/8       | 3/8 | mm   | 24.0 | 24.0 | 41.0 | 34.0 | 66.0  | 82.7  | 26.0 | 27.0 | 19.1 | kg   | 0.068  | 0.220  |
|             |           |     | inch | 0.94 | 0.94 | 1.61 | 1.34 | 2.60  | 3.26  | 1.02 | 1.06 | 0.75 | lb   | 0.15   | 0.49   |
| IRB12       | 1/2       | 1/2 | mm   | 27.0 | 27.0 | 46.0 | 42.0 | 73.9  | 92.6  | 29.0 | 29.0 | 23.5 | kg   | 0.102  | 0.323  |
|             |           |     | inch | 1.06 | 1.06 | 1.81 | 1.65 | 2.91  | 3.65  | 1.14 | 1.14 | 0.93 | lb   | 0.22   | 0.71   |
| IRB34       | 3/4       | 3/4 | mm   | 36.0 | 36.0 | 55.0 | 50.0 | 90.1  | 111.1 | 38.5 | 38.5 | 31.4 | kg   | 0.203  | 0.562  |
|             |           |     | inch | 1.42 | 1.42 | 2.17 | 1.97 | 3.55  | 4.37  | 1.52 | 1.52 | 1.24 | lb   | 0.45   | 1.24   |
| IRB100      | 1         | 1   | mm   | 41.0 | 41.0 | 66.0 | 60.0 | 106.2 | 133.2 | 44.8 | 44.8 | 37.7 | kg   | 0.328  | 0.863  |
|             |           |     | inch | 1.61 | 1.61 | 2.60 | 2.36 | 4.18  | 5.24  | 1.76 | 1.76 | 1.48 | lb   | 0.72   | 1.90   |

### ISO B IRBX NPT Thread Poppet Style Interchange Coupling | Stainless Steel

| PART                         | BODY SIZE | PORT SIZE | THREAD TYPE | ORDER CODE | PART DESCRIPTION |
|------------------------------|-----------|-----------|-------------|------------|------------------|
| <b>ISO B IRBX NPT THREAD</b> |           |           |             |            |                  |
| COUPLER                      | 1/8       | 1/8       | NPT         | 804601100  | F. IRBX 18 NPT   |
| NIPPLE                       | 1/8       | 1/8       | NPT         | 804601101  | M. IRBX 18 NPT   |
| COUPLER                      | 1/4       | 1/4       | NPT         | 804601102  | F. IRBX 14 NPT   |
| NIPPLE                       | 1/4       | 1/4       | NPT         | 804601103  | M. IRBX 14 NPT   |
| COUPLER                      | 3/8       | 3/8       | NPT         | 804601104  | F. IRBX 38 NPT   |
| NIPPLE                       | 3/8       | 3/8       | NPT         | 804601105  | M. IRBX 38 NPT   |
| COUPLER                      | 1/2       | 1/2       | NPT         | 804601106  | F. IRBX 12 NPT   |
| NIPPLE                       | 1/2       | 1/2       | NPT         | 804601107  | M. IRBX 12 NPT   |
| COUPLER                      | 3/4       | 3/4       | NPT         | 804601108  | F. IRBX 34 NPT   |
| NIPPLE                       | 3/4       | 3/4       | NPT         | 804601109  | M. IRBX 34 NPT   |
| COUPLER                      | 1         | 1         | NPT         | 804601110  | F. IRBX 100 NPT  |
| NIPPLE                       | 1         | 1         | NPT         | 804601111  | M. IRBX 100 NPT  |



Coupler



Nipple



### ISO B IRB NPT and SAE Thread Poppet Style Interchange Coupling | Steel

| PART                        | BODY SIZE | PORT SIZE | THREAD TYPE | ORDER CODE | DESCRIPTION        |
|-----------------------------|-----------|-----------|-------------|------------|--------------------|
| <b>ISO B IRB NPT THREAD</b> |           |           |             |            |                    |
| COUPLER                     | 1/8       | 1/8       | NPT         | 800601000  | F. IRB 18 NPT      |
| NIPPLE                      | 1/8       | 1/8       | NPT         | 800601001  | M. IRB 18 NPT      |
| COUPLER                     | 1/4       | 1/4       | NPT         | 800601002  | F. IRB 14 NPT      |
| NIPPLE                      | 1/4       | 1/4       | NPT         | 800601003  | M. IRB 14 NPT      |
| COUPLER                     | 3/8       | 3/8       | NPT         | 800601004  | F. IRB 38 NPT      |
| NIPPLE                      | 3/8       | 3/8       | NPT         | 800601005  | M. IRB 38 NPT      |
| COUPLER                     | 1/2       | 1/2       | NPT         | 800601006  | F. IRB 12 NPT      |
| NIPPLE                      | 1/2       | 1/2       | NPT         | 800601007  | M. IRB 12 NPT      |
| COUPLER                     | 3/4       | 3/4       | NPT         | 800601008  | F. IRB 34 NPT      |
| NIPPLE                      | 3/4       | 3/4       | NPT         | 800601009  | M. IRB 34 NPT      |
| COUPLER                     | 1         | 1         | NPT         | 800601010  | F. IRB 100 NPT     |
| NIPPLE                      | 1         | 1         | NPT         | 800601011  | M. IRB 100 NPT     |
| <b>IRB SAE THREAD</b>       |           |           |             |            |                    |
| COUPLER                     | 1/4       | 3/8       | SAE         | 800604202  | F. IRB 14E 3/8 SAE |
| NIPPLE                      | 1/4       | 3/8       | SAE         | 800604201  | M. IRB 14E 3/8 SAE |



Coupler



Nipple

POPPET INTERCHANGE  
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### ISO B IRBO NPT Thread Poppet Style Interchange Coupling | Brass

| PART                         | BODY SIZE | PORT SIZE | THREAD TYPE | ORDER CODE | DESCRIPTION      |
|------------------------------|-----------|-----------|-------------|------------|------------------|
| <b>ISO B IRBO NPT THREAD</b> |           |           |             |            |                  |
| COUPLER                      | 1/8       | 1/8       | NPT         | 804501100  | F. IRBOV 18 NPT  |
| NIPPLE                       | 1/8       | 1/8       | NPT         | 804501101  | M. IRBOV 18 NPT  |
| COUPLER                      | 1/4       | 1/4       | NPT         | 804501102  | F. IRBOV 14 NPT  |
| NIPPLE                       | 1/4       | 1/4       | NPT         | 804501103  | M. IRBOV 14 NPT  |
| COUPLER                      | 3/8       | 3/8       | NPT         | 804501104  | F. IRBOV 38 NPT  |
| NIPPLE                       | 3/8       | 3/8       | NPT         | 804501105  | M. IRBOV 38 NPT  |
| COUPLER                      | 1/2       | 1/2       | NPT         | 804501106  | F. IRBOV 12 NPT  |
| NIPPLE                       | 1/2       | 1/2       | NPT         | 804501107  | M. IRBOV 12 NPT  |
| COUPLER                      | 3/4       | 3/4       | NPT         | 804501108  | F. IRBOV 34 NPT  |
| NIPPLE                       | 3/4       | 3/4       | NPT         | 804501109  | M. IRBOV 34 NPT  |
| COUPLER                      | 1         | 1         | NPT         | 804501110  | F. IRBOV 100 NPT |
| NIPPLE                       | 1         | 1         | NPT         | 804501111  | M. IRBOV 100 NPT |



Coupler



Nipple

### ISO B IRB Series Accessories Coupler Dust Plug | Nipple Dust Cap

| PART                      | ORDER CODE | DESCRIPTION                | ORDER CODE | DESCRIPTION   |
|---------------------------|------------|----------------------------|------------|---------------|
| <b>ISO B IRB DUST CAP</b> |            | <b>ISO B IRB DUST PLUG</b> |            |               |
| 1/4                       | 815000031  | CAP M. IRB18               | 815000030  | CAP F. IRB18  |
| 1/4                       | 815000033  | CAP M. IRB14               | 815000032  | CAP F. IRB14  |
| 3/8                       | 815000035  | CAP M. IRB38               | 815000034  | CAP F. IRB38  |
| 1/2                       | 815000037  | CAP M. IRB12               | 815000036  | CAP F. IRB12  |
| 3/4                       | 815000039  | CAP M. IRB34               | 815000038  | CAP F. IRB34  |
| 1                         | 815000041  | CAP M. IRB100              | 815000040  | CAP F. IRB100 |

### Repair Kits

| ORDER CODE              | DESCRIPTION  |
|-------------------------|--------------|
| <b>ISO B IRB SERIES</b> |              |
| 815700202               | KIT F. IRB18 |
| 815700204               | KIT F. IRB14 |
| 815700206               | KIT F. IRB38 |
| 815700208               | KIT F. IRB12 |

| ORDER CODE                      | DESCRIPTION      |
|---------------------------------|------------------|
| <b>ISO B IRB SERIES (CONT.)</b> |                  |
| 815700210                       | KIT F. IRB34     |
| 815700212                       | KIT F. IRB100    |
| 815700211                       | KIT M./F. IRB34  |
| 815700213                       | KIT M./F. IRB100 |

