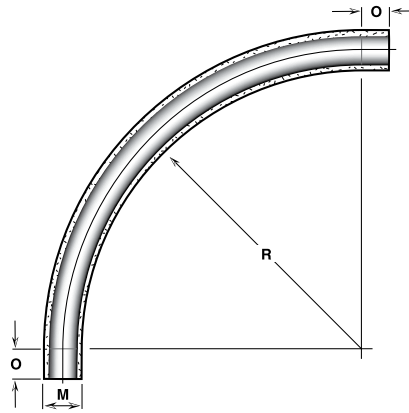


# PHENOLIC ELBOWS

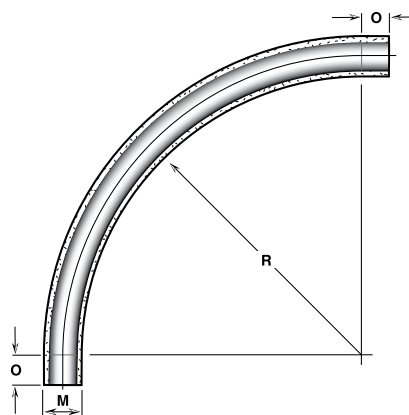


90° X 36"

| Nominal Size | Type | IPS Item No. | M          | O-Tangent (min) | R - Radius (min) | Weight lbs  | kg |
|--------------|------|--------------|------------|-----------------|------------------|-------------|----|
| ¾            | SW   | 07E-SW-92-P  | 1.05 (27)  | 6 (152)         | 36 (914)         | 0.96 (0.44) |    |
| 1            | SW   | 10E-SW-92-P  | 1.32 (33)  | 6 (152)         | 36 (914)         | 1.08 (0.49) |    |
| 1¼           | SW   | 12E-SW-92-P  | 1.66 (42)  | 6 (152)         | 36 (914)         | 1.30 (0.59) |    |
| 1½           | SW   | 15E-SW-92-P  | 1.90 (48)  | 6 (152)         | 36 (914)         | 1.87 (0.85) |    |
| 2            | SW   | 20E-SW-92-P  | 2.37 (60)  | 6 (152)         | 36 (914)         | 2.15 (0.98) |    |
| 2½           | SW   | 25E-SW-92-P  | 2.88 (73)  | 6 (152)         | 36 (914)         | 2.61 (1.19) |    |
| 3            | SW   | 30E-SW-92-P  | 3.50 (89)  | 6 (152)         | 36 (914)         | 3.40 (1.54) |    |
| 4            | SW   | 40E-SW-92-P  | 4.46 (113) | 6 (152)         | 36 (914)         | 4.08 (1.85) |    |
| 4            | HW   | 40E-HW-92-P  | 4.51 (115) | 6 (152)         | 36 (914)         | 5.50 (2.50) |    |
| 5            | MW   | 50E-MW-92-P  | 5.57 (141) | 6 (152)         | 36 (914)         | 6.85 (3.08) |    |
| 5            | HW   | 50E-HW-92-P  | 5.60 (142) | 6 (152)         | 36 (914)         | 7.54 (3.42) |    |
| 6            | MW   | 60E-MW-92-P  | 6.63 (168) | 6 (152)         | 36 (914)         | 8.11 (3.65) |    |
| 6            | HW   | 60E-HW-92-P  | 6.66 (169) | 6 (152)         | 36 (914)         | 9.31 (4.19) |    |

| Nominal Size | Type | ID Item No. | M          | O-Tangent (min) | R - Radius (min) | Weight lbs  | kg |
|--------------|------|-------------|------------|-----------------|------------------|-------------|----|
| 2            | SW   | 20F-SW-92-P | 2.14 (54)  | 6 (152)         | 36 (914)         | 1.93 (1.14) |    |
| 2½           | SW   | 25F-SW-92-P | 2.64 (67)  | 6 (152)         | 36 (914)         | 2.38 (1.36) |    |
| 3            | SW   | 30F-SW-92-P | 3.14 (80)  | 6 (152)         | 36 (914)         | 2.72 (1.59) |    |
| 3½           | SW   | 35F-SW-92-P | 3.64 (92)  | 6 (152)         | 36 (914)         | 3.40 (1.63) |    |
| 4            | SW   | 40F-SW-92-P | 4.14 (105) | 6 (152)         | 36 (914)         | 3.91 (1.68) |    |
| 4            | HW   | 40F-HW-92-P | 4.19 (106) | 6 (152)         | 36 (914)         | 5.21 (2.09) |    |
| 4½           | SW   | 45F-SW-92-P | 4.64 (117) | 6 (152)         | 36 (914)         | 4.25 (1.86) |    |
| 4½           | HW   | 45F-HW-92-P | 4.69 (118) | 6 (152)         | 36 (914)         | 5.89 (2.27) |    |
| 5            | MW   | 50F-MW-92-P | 5.19 (132) | 6 (152)         | 36 (914)         | 6.45 (2.90) |    |
| 5            | HW   | 50F-HW-92-P | 5.22 (132) | 6 (152)         | 36 (914)         | 7.42 (3.34) |    |
| 6            | MW   | 60F-MW-92-P | 6.19 (157) | 6 (152)         | 36 (914)         | 7.71 (3.47) |    |
| 6            | HW   | 60F-HW-92-P | 6.22 (158) | 6 (152)         | 36 (914)         | 9.02 (4.06) |    |

| Nominal Size | Type | Item No.    | M          | O-Tangent (min) | R - Radius (min) | Weight lbs   | kg |
|--------------|------|-------------|------------|-----------------|------------------|--------------|----|
| ¾            | XW   | 07E-XW-92-P | 1.41 (36)  | 6 (152)         | 36 (914)         | 3.46 (1.57)  |    |
| 1            | XW   | 10E-XW-92-P | 1.68 (43)  | 6 (152)         | 36 (914)         | 3.85 (1.75)  |    |
| 1¼           | XW   | 12E-XW-92-P | 2.02 (51)  | 6 (152)         | 36 (914)         | 4.65 (2.11)  |    |
| 1½           | XW   | 15E-XW-92-P | 2.26 (57)  | 6 (152)         | 36 (914)         | 6.69 (3.04)  |    |
| 2            | XW   | 20F-XW-92-P | 2.50 (65)  | 6 (152)         | 36 (914)         | 7.14 (3.24)  |    |
| 2½           | XW   | 25F-XW-92-P | 3.00 (76)  | 6 (152)         | 36 (914)         | 8.73 (3.96)  |    |
| 3            | XW   | 30F-XW-92-P | 3.50 (89)  | 6 (152)         | 36 (914)         | 10.31 (4.68) |    |
| 3½           | XW   | 35F-XW-92-P | 4.00 (102) | 6 (152)         | 36 (914)         | 11.90 (5.40) |    |
| 4            | XW   | 40F-XW-92-P | 4.50 (114) | 6 (152)         | 36 (914)         | 13.49 (6.12) |    |
| 5            | XW   | 50F-XW-92-P | 5.50 (140) | 6 (152)         | 36 (914)         | 16.79 (7.56) |    |
| 6            | XW   | 60F-XW-92-P | 6.50 (165) | 6 (152)         | 36 (914)         | 19.99 (9.00) |    |



90° X 48"

| Nominal Size | Type | IPS Item No. | M          | O-Tangent (min) | R - Radius (min) | Weight lbs   | kg |
|--------------|------|--------------|------------|-----------------|------------------|--------------|----|
| ¾            | SW   | 07E-SW-93-P  | 1.05 (27)  | 6 (152)         | 48 (1,219)       | 1.36 (0.62)  |    |
| 1            | SW   | 10E-SW-93-P  | 1.32 (33)  | 6 (152)         | 48 (1,219)       | 1.52 (0.69)  |    |
| 1¼           | SW   | 12E-SW-93-P  | 1.66 (42)  | 6 (152)         | 48 (1,219)       | 1.84 (0.84)  |    |
| 1½           | SW   | 15E-SW-93-P  | 1.90 (48)  | 6 (152)         | 48 (1,219)       | 2.64 (1.20)  |    |
| 2            | SW   | 20E-SW-93-P  | 2.37 (60)  | 6 (152)         | 48 (1,219)       | 3.04 (1.38)  |    |
| 2½           | SW   | 25E-SW-93-P  | 2.88 (73)  | 6 (152)         | 48 (1,219)       | 3.68 (1.67)  |    |
| 3            | SW   | 30E-SW-93-P  | 3.50 (89)  | 6 (152)         | 48 (1,219)       | 4.80 (2.18)  |    |
| 4            | SW   | 40E-SW-93-P  | 4.46 (113) | 6 (152)         | 48 (1,219)       | 5.76 (2.62)  |    |
| 4            | HW   | 40E-HW-93-P  | 4.51 (114) | 6 (152)         | 48 (1,219)       | 7.76 (3.52)  |    |
| 5            | MW   | 50E-MW-93-P  | 5.57 (141) | 6 (152)         | 48 (1,219)       | 9.60 (4.36)  |    |
| 5            | HW   | 50E-HW-93-P  | 5.60 (142) | 6 (152)         | 48 (1,219)       | 10.40 (4.72) |    |
| 6            | MW   | 60E-MW-93-P  | 6.63 (168) | 6 (152)         | 48 (1,219)       | 11.52 (5.23) |    |
| 6            | HW   | 60E-HW-93-P  | 6.66 (169) | 6 (152)         | 48 (1,219)       | 12.67 (5.75) |    |

| Nominal Size | Type | ID Item No. | M          | O-Tangent (min) | R - Radius (min) | Weight lbs   | kg |
|--------------|------|-------------|------------|-----------------|------------------|--------------|----|
| 2            | SW   | 20F-SW-93-P | 2.14 (54)  | 6 (152)         | 48 (1,219)       | 2.72 (1.24)  |    |
| 2½           | SW   | 25F-SW-93-P | 2.64 (67)  | 6 (152)         | 48 (1,219)       | 3.36 (1.53)  |    |
| 3            | SW   | 30F-SW-93-P | 3.14 (80)  | 6 (152)         | 48 (1,219)       | 3.84 (1.74)  |    |
| 3½           | SW   | 35F-SW-93-P | 3.64 (92)  | 6 (152)         | 48 (1,219)       | 4.80 (2.18)  |    |
| 4            | SW   | 40F-SW-93-P | 4.14 (105) | 6 (152)         | 48 (1,219)       | 5.52 (2.51)  |    |
| 4            | HW   | 40F-HW-93-P | 4.19 (106) | 6 (152)         | 48 (1,219)       | 7.36 (3.34)  |    |
| 4½           | SW   | 45F-SW-93-P | 4.64 (117) | 6 (152)         | 48 (1,219)       | 6.00 (2.72)  |    |
| 4½           | HW   | 45F-HW-93-P | 4.69 (118) | 6 (152)         | 48 (1,219)       | 8.32 (3.78)  |    |
| 5            | MW   | 50F-MW-93-P | 5.19 (132) | 6 (152)         | 48 (1,219)       | 9.04 (4.10)  |    |
| 5            | HW   | 50F-HW-93-P | 5.22 (133) | 6 (152)         | 48 (1,219)       | 10.56 (4.79) |    |
| 6            | MW   | 60F-MW-93-P | 6.19 (157) | 6 (152)         | 48 (1,219)       | 10.85 (4.92) |    |
| 6            | HW   | 60F-HW-93-P | 6.22 (158) | 6 (152)         | 48 (1,219)       | 12.48 (5.66) |    |

| Nominal Size | Type | Item No.    | M          | O-Tangent (min) | R - Radius (min) | Weight lbs    | kg |
|--------------|------|-------------|------------|-----------------|------------------|---------------|----|
| ¾            | XW   | 07E-XW-93-P | 1.41 (36)  | 6 (152)         | 48 (1,219)       | 4.44 (2.04)   |    |
| 1            | XW   | 10E-XW-93-P | 1.68 (43)  | 6 (152)         | 48 (1,219)       | 4.95 (2.26)   |    |
| 1¼           | XW   | 12E-XW-93-P | 2.02 (51)  | 6 (152)         | 48 (1,219)       | 5.97 (2.69)   |    |
| 1½           | XW   | 15E-XW-93-P | 2.26 (57)  | 6 (152)         | 48 (1,219)       | 8.59 (3.86)   |    |
| 2            | XW   | 20F-XW-93-P | 2.50 (65)  | 6 (152)         | 48 (1,219)       | 10.08 (4.58)  |    |
| 2½           | XW   | 25F-XW-93-P | 3.00 (76)  | 6 (152)         | 48 (1,219)       | 12.32 (5.59)  |    |
| 3            | XW   | 30F-XW-93-P | 3.50 (89)  | 6 (152)         | 48 (1,219)       | 14.56 (6.61)  |    |
| 3½           | XW   | 35F-XW-93-P | 4.00 (102) | 6 (152)         | 48 (1,219)       | 16.80 (7.63)  |    |
| 4            | XW   | 40F-XW-93-P | 4.50 (114) | 6 (152)         | 48 (1,219)       | 19.04 (8.64)  |    |
| 5            | XW   | 50F-XW-93-P | 5.50 (140) | 6 (152)         | 48 (1,219)       | 23.52 (10.68) |    |
| 6            | XW   | 60F-XW-93-P | 6.50 (165) | 6 (152)         | 48 (1,219)       | 28.00 (12.71) |    |