

C1T 1-Wire Braid Hose — SAE 100R1 Type AT

Recommended for: Medium pressure hydraulic lines. Meets or exceeds the requirements of SAE 100R1AT and performance requirements of DIN 20022 1SN.

Tube: Black, oil-resistant synthetic rubber. (Nitrile).

Reinforcement: One braid of high-tensile steel wire.

Cover: Black, oil- and abrasion-resistant synthetic rubber. (Modified Nitrile). No skiving needed with "Type T", Power Crimp® or MegaCrimp® couplings.

Temperature range: -40°F to +212°F (-40°C to +100°C).



SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Working Pressure (bar)	Min. Burst Pressure (psi)	Min. Burst Pressure (bar)	Min. Bend Radius (In.)
3C1T (G1)	4657-0618	3/16	.47	3,625	250	14,500	1,000	3.5
4C1T (G1)	4657-0619	1/4	.53	3,275	225	13,100	900	4
5C1T (G1)	4657-0031	5/16	.59	3,125	215	12,500	850	4.5
6C1T (G1)	4657-0622	3/8	.69	2,600	180	10,400	720	5
8C1T (G1)	4657-0623	1/2	.82	2,325	160	9,300	640	7
10C1T (G1)	4657-0633	5/8	.94	1,900	130	7,600	520	8
12C1T (G1)	4657-0624	3/4	1.10	1,525	105	6,100	420	9.5
16C1T (G1)	4657-0628	1	1.41	1,275	88	5,100	350	12
20C1T (G1)	4657-0646	1 1/4	1.72	925	63	3,700	250	16

Power Crimp and MegaCrimp are registered trademarks of The Gates Rubber Company.

C1TH High Temp 1-Wire Braid Hose — SAE 100R1 Type AT



Recommended for: Medium pressure hydraulic oil lines. Meets or exceeds requirements of SAE 100R1 Type AT.

Tube: Black, oil-resistant, synthetic rubber. (Nitrile).

Reinforcement: One braid of high tensile steel wire.

Cover: Black, oil- and abrasion-resistant synthetic rubber. (Hypalon®).

Temperature range: -40°F to +275°F (-40°C to +135°C) constant and 300°F (149°C) intermittent (up to 10% of operating time).

SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
4C1TH (G1H)	4657-0900	1/4	.53	2,750	11,000	4
6C1TH (G1H)	4657-0901	3/8	.69	2,250	9,000	5
8C1TH (G1H)	4657-0902	1/2	.82	2,000	8,000	7
10C1TH (G1H)	4657-0910	5/8	.94	1,500	6,000	8
12C1TH (G1H)	4657-0903	3/4	1.10	1,250	5,000	9.5
16C1TH (G1H)	4657-0904	1	1.41	1,000	4,000	12
20C1TH (G1H)	4657-0940	1 1/4	1.72	625	2,500	16
24C1TH (G1H)	4657-0934	1 1/2	1.99	725	2,900	20
32C1TH (G1H)	4657-0935	2	2.52	600	2,400	25

Hypalon is a registered trademark of the DuPont Co.

G2 (C2AT) 2-Wire Braid Hose — SAE 100R2 Type AT
 (Meets Flame Resistance Acceptance Designation “U.S. MSHA 2G”)



Recommended for: High pressure hydraulic oil lines. Meets or exceeds the requirements of SAE 100R2AT and performance requirements of DIN 20022 2SN.

Tube: Black, oil-resistant synthetic rubber. (Nitrile).

Reinforcement: Two braids of high-tensile steel wire.

Cover: Black, oil- and abrasion-resistant thin synthetic rubber. No skiving required with “Type T” or Power Crimp® couplings. (Modified Nitrile).

Temperature range: -40°F to +212°F (-40°C to +100°C).

SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Working Pressure (bar)	Min. Burst Pressure (psi)	Min. Burst Pressure (bar)	Min. Bend Radius (In.)
3G2	4657-0020	3/16	.52	6,000	415	24,000	1,650	3.5
4G2	4657-0625	1/4	.58	5,800	400	23,200	1,600	4
6G2	4657-0626	3/8	.73	4,800	330	19,200	1,320	5
8G2	4657-0627	1/2	.86	4,000	275	16,000	1,100	7
10G2	4657-0019	5/8	.98	3,625	250	14,500	1,000	8
12G2	4657-0620	3/4	1.14	3,100	215	12,400	850	9.5
16G2	4657-0621	1	1.48	2,400	165	9,600	650	12
20G2	4657-0644	1 1/4	1.87	1,825	125	7,300	500	16.5

Power Crimp is a registered trademark of The Gates Rubber Company.

G2 (C2ATH) High-Temp 2-Wire Braid Hose — SAE 100R2 Type AT
 (Meets Flame Resistance Acceptance Designation “U.S. MSHA 2G”)



Recommended for: High pressure hydraulic oil lines. Meets or exceeds the requirements of SAE 100R2AT.

Tube: Black, oil-resistant synthetic rubber. (Hypalon®).

Reinforcement: Two braids of high-tensile steel wire.

Cover: Black, oil-resistant synthetic rubber. (Hypalon®).

Temperature range: -40°F to +275°F (-40°C to +135°C) constant and 300°F (149°C) intermittent — up to 10% of operating time.

SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
20G2H	4657-0930	1 1/4	1.88	1,625	6,500	16.5
24G2H	4657-0931	1 1/2	2.15	1,250	5,000	20
32G2H	4657-0932	2	2.65	1,125	4,500	25

Hypalon is a registered trademark of the DuPont Co.

ΔM3K Mega3000® Hose — SAE 100R17

(Meets Flame Resistance Acceptance Designation “U.S. MSHA 2G”)

SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
Δ4M3K	4657-1157	¼	.47	3,000	12,000	2
Δ6M3K	4657-1158	⅜	.62	3,000	12,000	2.5
Δ8M3K	4657-1159	½	.78	3,000	12,000	3.5
Δ10M3K	4657-1173	⅝	.98	3,000	12,000	4
Δ12M3K	4657-0679	¾	1.14	3,000	12,000	4.80
Δ16M3K	4657-1163	1	1.48	3,000	12,000	6

MegaTuff® HOSE SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
Δ4M3K-MTF	4657-1181	¼	.47	3,000	12,000	2
Δ6M3K-MTF	4657-1182	⅜	.62	3,000	12,000	2.5
Δ8M3K-MTF	4657-1183	½	.78	3,000	12,000	3.5
Δ10M3K-MTF	4657-1184	⅝	.98	3,000	12,000	4
Δ12M3K-MTF	4657-1185	¾	1.14	3,000	12,000	4.75
Δ16M3K-MTF	4657-1186	1	1.48	3,000	12,000	6



Recommended for: High pressure hydraulic oil lines. Exceeds SAE performance requirements because ΔM3K hose has smaller exterior dimensions and **significantly tighter bend radius... up to half SAE rating.**

Tube: Black, oil-resistant, synthetic rubber. (Nitrile).

Reinforcement: Braided high tensile steel wire.

Cover: Black, oil-, abrasion- and weather-resistant, synthetic rubber. (Modified Nitrile).

Temperature range: -40°F to +212°F (-40°C to +100°C).

M3K Mega3000 and MegaTuff are registered trademarks of The Gates Rubber Company.

C7S and C7SNC Hydraulic Hose — SAE 100R7

SPECIFICATIONS — C7S

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
2C7S	4467-0600	⅛	.32	2,500	10,000	.5
3C7S	4467-0605	⅜	.43	3,000	12,000	.8
4C7S	4467-0610	¼	.51	2,750	11,000	1.3
5C7S	4467-0620	⅝	.56	2,500	10,000	1.8
6C7S	4467-0625	⅜	.65	2,250	9,000	2
8C7S	4467-0635	½	.81	2,000	8,000	3
12C7S	4467-0640	¾	1.07	1,250	5,000	5
16C7S	4467-0645	1	1.32	1,000	4,000	8

SPECIFICATIONS — C7SNC

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
2C7SNC	4467-0650	⅛	.32	2,500	10,000	.5
3C7SNC	4467-0655	⅜	.43	3,000	12,000	.8
4C7SNC	4467-0660	¼	.51	2,750	11,000	1.3
5C7SNC	4467-0670	⅝	.56	2,500	10,000	1.8
6C7SNC	4467-0675	⅜	.65	2,250	9,000	2
8C7SNC	4467-0685	½	.81	2,000	8,000	3
12C7SNC	4467-0690	¾	1.07	1,250	5,000	5
16C7SNC	4467-0695	1	1.32	1,000	4,000	8



Recommended for: Petroleum, water base and synthetic hydraulic fluids. Applications include power and telephone mobile equipment (cherry pickers), lubrication lines, blowout preventer control lines, hydraulic lifts and farm and construction machinery. Orange color C7SNC meets SAE 100R7 non-conductivity requirements. Both C7S and C7SNC hoses meet or exceed performance requirements of SAE 100R7 with significantly tighter bend radius.

Tube: 100% seamless nylon that easily handles a broad range of hydraulic fluids, including phosphate esters and water glycol.

Reinforcement: Single polyester braid.

Cover: Black or orange urethane that resists hydraulic fluids, high temperatures, aging and weathering. Orange C7SNC is non-perforated for applications requiring electrical non-conductivity. Meets SAE 100R7 Electrical Conductivity Test. Maximum leakage shall not exceed 50 micro-amperes when subjected to 75kV/Ft. for five minutes. (Orange is industry accepted color for non-conductive hose.) Black C7S is perforated for use in general hydraulic and pneumatic service.

Temperature range: -65°F to +200°F (-54°C to +93°C) continuous service for petroleum and synthetic oils. Maximum of 158°F (70°C) for water, water/oil emulsions and water glycol.

G4H MegaVac® Return Line and Suction Hose — SAE 100R4

(Meets Flame Resistance Acceptance Designation “U.S. MSHA 2G”)



Recommended for: Petroleum and water-base hydraulic fluids in suction lines or in low pressure return lines. Meets or exceeds requirements of SAE 100R4. *One-half the bend radius of SAE 100R4.*

Tube: Black, synthetic nitrile rubber is specifically designed for resistance to high temperatures.

Reinforcement: Double spiral reinforced with a helical spiral-wire to prevent collapse.

Cover: Black neoprene synthetic rubber is oil- and abrasion-resistant.

Temperature range: -40°F to +275°F (-40°C to +135°C) constant and 300°F (149°C) intermittent (up to 10% of operating time).

SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Vacuum (In. Hg)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
12G4H	3105-0022	¾	1.18	25	300	1,000	2.5
16G4H	3105-0001	1	1.45	25	250	800	3
20G4H	3105-0002	1¼	1.70	25	200	750	4
24GMV (G4H)	3105-0004	1½	2.01	25	162	650	5
32GMV (G4H)	3105-0006	2	2.51	25	112	450	6
40GMV (G4H)	3105-0010	2½	3.02	25	68	275	7
48GMV (G4H)	3105-0014	3	3.51	25	62	250	9
56GMV (G4H)	3105-0015	3½	4.01	25	56	225	10
64GMV (G4H)	3105-0018	4	4.51	25	56	225	12

G4H MegaVac is a registered trademark of The Gates Rubber Company.

C12 AND C12M 4-Spiral Wire Hose — SAE 100R12

(Meets Flame Resistance Acceptance Designation “U.S. MSHA 2G”)



Recommended for: Very high pressure hydraulic applications. C12 hose provides excellent impulse life.

Tube: Black, oil-resistant, synthetic rubber. (Neoprene).

Reinforcement: Four layers of alternated, spiraled high tensile steel wire.

Cover: Black, oil-resistant, synthetic rubber. (Neoprene).

Temperature range: -40°F to +250°F (40°C to +121°C).

Also available with abrasion-resistant MegaTuff® cover.

SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
6C12M	4651-0601	¾	.80	4,000	16,000	2.5
8C12M	4651-0602	½	.94	4,000	16,000	3.5
12C12M	4651-0603	¾	1.21	4,000	16,000	4.8
16C12M	4651-0604	1	1.50	4,000	16,000	6
20C12M	4651-0605	1¼	1.85	3,000	12,000	8.3
24C12M	4651-0606	1½	2.11	2,500	10,000	20
32C12M	4651-0607	2	2.63	2,500	10,000	25

MegaTuff is a registered trademark of The Gates Rubber Company.

G5K/C13 Spiral Wire Hose — SAE 100R13

(Meets Flame Resistance Acceptance Designation “U.S. MSHA 2G”)

Recommended for: Extremely high pressure hydraulic applications, and severe applications such as hydrostatic transmissions. C13 is designed to meet all requirements of SAE 100R13 specifications.

Tube: Black, oil-resistant synthetic rubber. (Neoprene).

Reinforcement: Four layers of alternated, spiraled, high tensile steel wire over a layer of fabric on -10, -12 and -16 sizes — six layers of alternated spiraled, high tensile steel wire over a layer of fabric on -20, -24, and -32 sizes.

Cover: Black, oil-resistant synthetic rubber. (Neoprene). Red stripe.

Temperature range: -40°F to +250°F (-40°C to +121°C).

Available in 121' to 200' continuous lengths.



Skiving Required

SPECIFICATIONS

Catalog Description	Product No.	Hose I.D. (In.)	Hose O.D. (In.)	Working Pressure (psi)	Min. Burst Pressure (psi)	Min. Bend Radius (In.)
10G5K	4651-1268	5/8	1.11	5,000	20,000	8
12G5K	4651-1272	3/4	1.26	5,000	20,000	9.5
16G5K	4651-0403	1	1.53	5,000	20,000	12
20G5K	4651-0404	1 1/4	1.97	5,000	20,000	16.5
24G5K	4651-0405	1 1/2	2.26	5,000	20,000	20
32G5K	4651-0406	2	2.80	5,000	20,000	25

Gates Hydraulic Hose Features

EXTREMELY HIGH PRESSURE — G6K Hose, SAE 100R15



- Recommended for extremely high pressure and high impulse hydraulic applications. Designed for hydrostatic transmissions and other severe operating conditions.
- 6000 psi working pressure.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- Four or six layers of spiraled high tensile steel wire over a fabric layer.
- Available in 3/8", 1/2", 1" and 1 1/4" I.D.
- No internal tube skive required, reducing chance of system contamination.
- Highly visible layline for easy identification.
- Low profile ferrules make plumbing easy in tight areas.
- Variety of PCM coupling configurations make factory-quality assemblies easy.
- 1" and 1 1/4" I.D. available in 121' to 200' continuous lengths.
- **Abrasion resistant MegaTuff® cover available on this hose.**

EXTREMELY HIGH PRESSURE — G4K Hose, SAE 100R11



- Recommended for extremely high pressure and high impulse hydraulic applications.
- 4000 psi working pressure.
- Available only in 1 1/4" I.D.
- Exceeds SAE 100R11 in temperature rating and impulse life.
- Four layers of spiraled high tensile steel wire over a fabric layer.
- Variety of no-skive PCS coupling configurations make assembly fabrication easy.
- Available in 121' to 200' continuous lengths.
- **Abrasion resistant MegaTuff® cover available on this hose.**

EXTREMELY HIGH PRESSURE — G3K Hose, SAE 100R11



- Recommended for extremely high pressure and high impulse hydraulic applications.
- 3000 psi working pressure.
- Available in 1 1/2" and 2" I.D.
- Exceeds SAE 100R11 in temperature rating and impulse life.
- Four layers of spiraled high tensile steel wire over a fabric layer.
- Variety of no-skive PCS coupling configurations make assembly fabrication easy.
- Available in 121' to 200' continuous lengths.
- **Abrasion resistant MegaTuff® cover available on this hose.**

EXTREMELY HIGH PRESSURE — G5K/C13 Hose, SAE 100R13



Hose Data page 197

- Recommended for extremely high pressure and high impulse hydraulic applications. Designed for hydrostatic transmissions and other severe operating conditions.
- 5000 psi working pressure.
- Meets or exceeds SAE 100R13.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- Four or six alternating layers of spiraled high tensile steel wire over fabric layer.
- Available in 5/8" through 2" I.D.
- No internal tube skive, reducing chance of system contamination.
- Highly visible layline for easy identification.
- Low profile ferrules make plumbing convenient in tight areas.
- Variety of PCM coupling configurations make factory-quality assemblies easy.
- All sizes available in 121' to 200' continuous lengths.
- **Abrasion resistant MegaTuff® cover available on this hose.**

MegaTuff is a registered trademark of The Gates Rubber Co.

Ask for a Gates' Hydraulic Hose, Fittings & Equipment Catalog for further information.

Gates Hydraulic Hose Features — continued

VERY HIGH PRESSURE — C12M MegaSpiral® Hose, SAE 100R12

- Recommended for very high pressure hydraulic applications. Provides excellent impulse life, surpassing 1 million impulse cycles when tested under SAE 100R12 conditions.
- 3000 to 4000 psi working pressure.
- **Half the bend radius and more flexible than SAE 100R12.**
- Meets or exceeds SAE 100R12.
- Available in 3/8", 1/2", 3/4", 1" and 1 1/4" I.D. sizes.
- Four alternating layers of spiraled high tensile steel wire over fabric layer.
- Highly visible layline printing for easy and permanent identification.
- Abrasion-resistant synthetic rubber cover.
- **No-skive ferrules** for PCS couplings make assembly fabrication easy.
- All sizes available in 121' to 200' continuous lengths.
- **Abrasion resistant MegaTuff® cover available on this hose. See page 194.**



Hose Data page 196

LOW PRESSURE — G4H MegaVac® Hose, SAE 100R4

- Recommended for petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.
- 56 to 250 psi working pressure.
- **One-half the bend radius of SAE 100R4.**
- Flexible and lightweight.
- Double spiral reinforced with helical spiral-wire to prevent collapse.
- Available in 3/4" through 4" I.D.
- Permanent PC and C4 style couplings make assemblies easy.



Hose Data page 196

LOW PRESSURE — C4 Hose, SAE 100R4

- Recommended for petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.
- 50 to 300 psi working pressure.
- Meets or exceeds SAE 100R4.
- Braided fiber reinforcement with spiral wire to prevent collapsing.
- Available in 3/4" through 3" I.D.
- Permanent C4 style couplings make assemblies easy.



LOW PRESSURE — LOL PLUS Hose

- Recommended for petroleum base hydraulic oils, water, hot lubricating oils, diesel fuels and air.
 - 300 psi working pressure.
 - One fiber braid reinforcement.
 - Available in 3/8" through 3/4" I.D.
 - Lock-on reusable couplings make assemblies easy.
- NOTE:** LOL Plus Hose is available in seven colors: black, blue, green, red, yellow, gray and white.



REFRIGERANT — PolarSeal™ Hose, SAE J51

- Recommended for transportation refrigeration and air conditioning systems that carry liquid and gaseous R134a and R12 refrigerants.
- 500 psi working pressure.
- Meets or exceeds SAE J51, Type A2 dimensions; SAE J51, Type D performance.
- Spiraled polyester reinforcement.
- Available in 3/8" through 3/4" I.D.
- Permanent ACA couplings make assemblies easy.



MegaSpiral, MegaTuff, MegaVac are registered trademarks and PolarSeal is a trademark of The Gates Rubber Company.

Ask for a Gates' Hydraulic Hose, Fittings & Equipment Catalog for further information.

Gates Hydraulic Hose Features — *continued*

MEDIUM PRESSURE — C5C Hose, SAE 100R5 and J1402



- Recommended for medium pressure hydraulic petroleum base oil lines in numerous applications. Meets or exceeds SAE 100R5, SAE J1402 Type AII and DOT FMVSS 106-74 Type AII.
- 350 to 3000 psi working pressure.
- One braid high tensile carbon steel wire over polyester braid.
- Textile braid cover.
- Available in 3/8" through 2 3/8" I.D.
- C5 type field attachable and permanent (through -12 size) couplings available.

MEDIUM PRESSURE — C5E Hose, SAE J1019



- Recommended for air brake hose, power steering, fuel filter, engine and transmission coolant lines and hot 300°F (149°C) lube lines.
- Recommended for diesel engine flexline applications. Meets DOT FMVSS 106-74 Type A1 and SAE J1019 hot oil circulation test.
- 300 to 1500 psi working pressure.
- Single braid of high tensile steel wire over polyester braid.
- Textile braid impregnated with rubber on black cover.
- Available in 3/8" through 1 1/8" I.D.
- C5E type field attachable and permanent couplings available.

HIGH PRESSURE — M2T® Megaflex® Hose, SAE 100R2



- Recommended for high pressure hydraulic oil lines. **One-half SAE 100R2 bend radius.**
- 2000 to 5000 psi working pressure.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- Two braids of high tensile steel wire.
- Available in 1/4" through 1" I.D.
- Superior flex impulse performance and lightweight.
- Easy to route and installs quickly in tight areas.
- No skiving required.
- Wide variety of Power Crimp® and MegaCrimp® Couplings available.
- **Abrasion resistant MegaTuff® cover available on this hose.**

HIGH PRESSURE — C2AT Hose WITH DIN RATING, SAE 100R2



Hose Data page 194

- Recommended for high pressure hydraulic oil lines.
- Meets performance requirements of DIN 20022 2SN — 125 to 415 bar working pressure.
- Meets or exceeds SAE 100R2AT — 1825 to 6000 psi working pressure.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- Two braids of high tensile steel wire.
- Available in 3/8" through 1 1/8" I.D.
- No skiving required.
- Power Crimp®, MegaCrimp® and field attachable couplings available.

Gates Hydraulic Hose Features — continued

HIGH PRESSURE — C2ATH Hose, SAE 100R2AT

- Recommended for high temperature, high pressure hydraulic oil lines.
- 1175 to 1625 psi working pressure.
- Meets or exceeds SAE 100R2AT.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- Two braids of high tensile steel wire.
- Available in 1¼", 1½" and 2" I.D.
- No skiving required.
- Wide variety of Power Crimp® and field attachable couplings available.



Hose Data page 194

HIGH PRESSURE — J2AT Jack Hose, 10,000 psi

- Recommended for hydraulic jack applications.
- 10,000 psi working pressure on static applications.
- Two braids of high tensile steel wire.
- Available in ¼" and ⅜" I.D.
- No skiving required.
- Meets Material Handling Institute Specification IJ 100 for Jack Hose.
- Wide variety of Power Crimp® and MegaCrimp® Couplings available.
- **Abrasion resistant MegaTuff® cover available on this hose.**



MEDIUM PRESSURE — C1T Hose WITH DIN RATING, SAE 100R1AT

- Recommended for medium pressure hydraulic oil lines.
- Meets performance requirements of DIN 20022 1SN — 63 to 250 bar working pressure.
- Meets or exceeds SAE 100R1AT — 925 to 3625 psi working pressure.
- One braid of high tensile steel wire.
- Available in ⅜" through 1¼" I.D.
- No skiving required.
- Wide variety of Power Crimp®, MegaCrimp® and field attachable couplings available.



Hose Data page 193

MEDIUM PRESSURE — C1TH Hose, SAE 100R1AT

- Recommended for medium pressure, high temperature hydraulic oil lines.
- 600 to 2750 psi working pressure.
- Meets or exceeds SAE 100R1AT.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- One braid of high tensile steel wire.
- Available in ¼" through 2" I.D.
- No skiving required.
- Wide variety of Power Crimp® Couplings makes assemblies easy.



Hose Data page 193

Power Clean Pressure Washer Hose

- Recommended for use on hot and cold water high pressure cleaning equipment where heavy-duty service is required. Great for agricultural and mobile cleaning operations.
- 2500 to 6000 psi working pressure.
- One braid and two braid of high tensile steel wire reinforcement.
- Modified nitrile cover is specially compounded to handle pressure washer environment.
- Available in ¼", ⅜" and ½" I.D.
- Wide variety of Power Crimp® and MegaCrimp® Couplings available.



MegaCrimp, MegaTuff and Power Crimp are registered trademarks of The Gates Rubber Company.

Ask for a Gates' Hydraulic Hose, Fittings & Equipment Catalog for further information.

Gates Hydraulic Hose Features — *continued*

VERY HIGH PRESSURE — CPS Mine Hose



- Recommended for high pressure hydraulic lines in longwall mining equipment and roof-support systems.
- 5000 psi dynamic working pressure and 6000 to 6700 psi static.
- Meets performance requirements of DIN 20023/Jan. 1985.
- Meets U.S. MSHA 2G-IC-11C/11 Flame Resistance Acceptance Designation.
- Four to six layers of alternated, spiraled high tensile steel wire over a fabric layer.
- Available in ¾" through 2" I.D.
- Gates PCM Press-Lok™ Couplings and staple adapters make assemblies easy to install.
- All sizes available in 121' to 200' continuous lengths.
- **Abrasion resistant MegaTuff® cover available on this hose.**

VERY HIGH PRESSURE — LW Mine Hose



- Recommended for high pressure hydraulic lines in longwall mining equipment and roof-support systems.
- 4000 psi dynamic working pressure and 5000 psi static.
- Meets U.S. MSHA 2G-IC-11C/11 Flame Resistance Acceptance Designation.
- Four layers of alternated, spiraled high tensile steel wire over a fabric layer.
- Available in ¾" and 1" I.D.
- Superior to SAE specifications.
- Gates PCS Press-Lok™ Couplings and staple adapters make assemblies easy to install.
- **Abrasion resistant MegaTuff® cover available on this hose.**

HIGH PRESSURE — SHR Rotary Drill Hose



- Recommended for mud drilling applications only.
- 3000 psi working pressure.
- Four alternating layers of spiraled high tensile steel wire over a fabric braid.
- Available in 2" I.D.
- Gates PCS Couplings makes assemblies easy.
- Available in 121' to 200' continuous lengths.

HIGH PRESSURE — Power Plus® G2AT-HMP Hi-Temp Hose



- Recommended for high pressure hydraulic applications where pressure or temperature requirements exceed SAE 100R2. Compatible with either petroleum base or fire-resistant phosphate ester fluids.
- 2500 to 4250 psi working pressure.
- Temperature range up to 300°F (149°C).
- Meets or exceeds SAE 100R2.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- Two braids of high tensile steel wire.
- Available in ½" through 1" I.D.
- Wide variety of Power Crimp® Couplings makes assemblies easy.

MegaTuff, Power Crimp and Power Plus are registered trademarks and Press-Lok is a trademark of The Gates Rubber Company.

Ask for a Gates' Hydraulic Hose, Fittings & Equipment Catalog for further information.

Gates Hydraulic Hose Features — continued

HIGH PRESSURE — Δ M3K Mega3000® Hose, SAE 100R17

- Recommended for high pressure hydraulic oil lines. **Can be bent twice as tight as SAE 100R1/100R2/100R9 bend radius standards.**
- 3000 psi rated working pressures — **all sizes.**
- Available in ¼" through 1¼" I.D. Sizes.
- ¼", ⅜", ½" and ¾" I.D. sizes meet SAE 100R2 impulse performance and exceed SAE 100R1 performance ratings.
- ¾" and 1" I.D. sizes meet SAE 100R9 and exceed SAE 100R2 impulse performance ratings.
- 1¼" I.D. size meets SAE 100R12 at one-half bend radius.
- Meets U.S. MSHA 2G Flame Resistance Acceptance Designation.
- Easy to route and install quickly in tight areas and saves on space and hose.
- Lightweight construction.
- No skiving required.
- Wide variety of Power Crimp® and MegaCrimp® Couplings available. (PCS couplings for 1" and 1¼" I.D. sizes).
- Hose and ferrules are labeled with Δ M3K to simplify ferrule selection.
- **Abrasion resistant MegaTuff® cover available on this hose. See page 193.**



Hose Data page 195

THERMOPLASTIC — C7S Hose (Black), SAE 100R7

- Recommended for petroleum, water emulsion and synthetic hydraulic fluids.
- Tight minimum bend radius and excellent kink resistance.
- 1000 to 3000 psi working pressure.
- Meets or exceeds SAE 100R7.
- Single polyester braid.
- Available in ⅜" through 1" I.D.
- Perforated urethane cover for hydraulic and pneumatic service.
- Nylon tube compatible with wide range of fluid types.
- Permanent PCTS swage style and MegaCrimp® couplings make assemblies easy.



Hose Data page 195

THERMOPLASTIC — C7SNC Hose (Orange), SAE 100R7

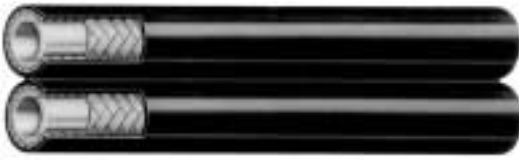
- Recommended for petroleum, water emulsion and synthetic hydraulic fluids.
- 1000 to 3000 psi working pressure.
- Meets or exceeds SAE 100R7.
- Single polyester braid.
- Available in ⅜" through 1" I.D.
- Orange, non-perforated urethane cover meets SAE 100R7 Electrical Conductivity Test. Electrically non-conductive.
- Nylon tube compatible with wide range of fluid types.
- Tight minimum bend radius and excellent kink resistance.
- Permanent PCTS swage style and MegaCrimp® couplings make assemblies easy.



Hose Data page 195

Gates Hydraulic Hose Features — *continued*

THERMOPLASTIC — C7SDL Hose (Black Dual Line), SAE 100R7



- Recommended for petroleum, water emulsion and synthetic hydraulic fluids.
- 2000 to 2750 psi working pressure.
- Meets or exceeds SAE 100R7.
- Single polyester braid.
- Available in ¼" through ½" I.D.
- Perforated urethane cover for hydraulic and pneumatic service.
- Excellent kink resistance.
- Nylon tube compatible with wide range of fluid types.
- Permanent PCTS swage style and MegaCrimp® couplings make assemblies easy.

THERMOPLASTIC — C7SNCDL Hose (Orange Dual Line), SAE 100R7



- Recommended for petroleum, water emulsion and synthetic hydraulic fluids.
- Orange, non-perforated urethane cover meets SAE 100R7 Electrical Conductivity Test.
- 2000 to 2750 psi working pressure.
- Meets or exceeds SAE 100R7.
- Single polyester braid.
- Available in ¼", ⅜" and ½" I.D.
- Nylon tube compatible with wide range of fluid types.
- Permanent PCTS swage style and MegaCrimp® couplings make assemblies easy.

THERMOPLASTIC — C8S Hose (Black), SAE 100R8



- Recommended for petroleum, water emulsion and synthetic hydraulic fluids.
- 2250 to 5000 psi working pressure.
- Meets or exceeds SAE 100R8.
- Single aramid braid.
- Available in ⅜" through ¾" I.D.
- Perforated urethane cover for general hydraulic and pneumatic service.
- Excellent kink resistance.
- Nylon tube compatible with wide range of fluid types.
- Extra tight minimum bend radius.
- Permanent PCTS swage style couplings make assemblies easy.

THERMOPLASTIC — C8SNC Hose (Orange), SAE 100R8



- Recommended for petroleum, water emulsion and synthetic hydraulic fluids.
- 3500 to 5000 psi working pressure.
- Meets or exceeds SAE 100R8.
- Single aramid fiber braid.
- Orange non-perforated cover meets SAE 100R8 Electrical Conductive Test requirement. Electrically non-conductive.
- Available in ¼", ⅜" and ½" I.D.
- Excellent kink resistance.
- Nylon tube compatible with wide range of fluid types.
- Extra tight minimum bend radius.
- Permanent PCTS swage style couplings make assemblies easy.

NOTE: For C8S and C8SNC dual line hoses, contact Summers Rubber Company.

How to Order Gates Hydraulic Hose Assemblies

When you order hydraulic assemblies, be sure the following information is included as shown in illustrations below:

1. Quantity of assemblies required.
2. Hose Catalog Description (dash size and type).
3. First coupling dash size and end style.
4. Second coupling dash size and end style.
5. Offset angle or orientation of couplings must be specified if both couplings contain bent tube ends.
6. Overall assembly length (L).

Caution:

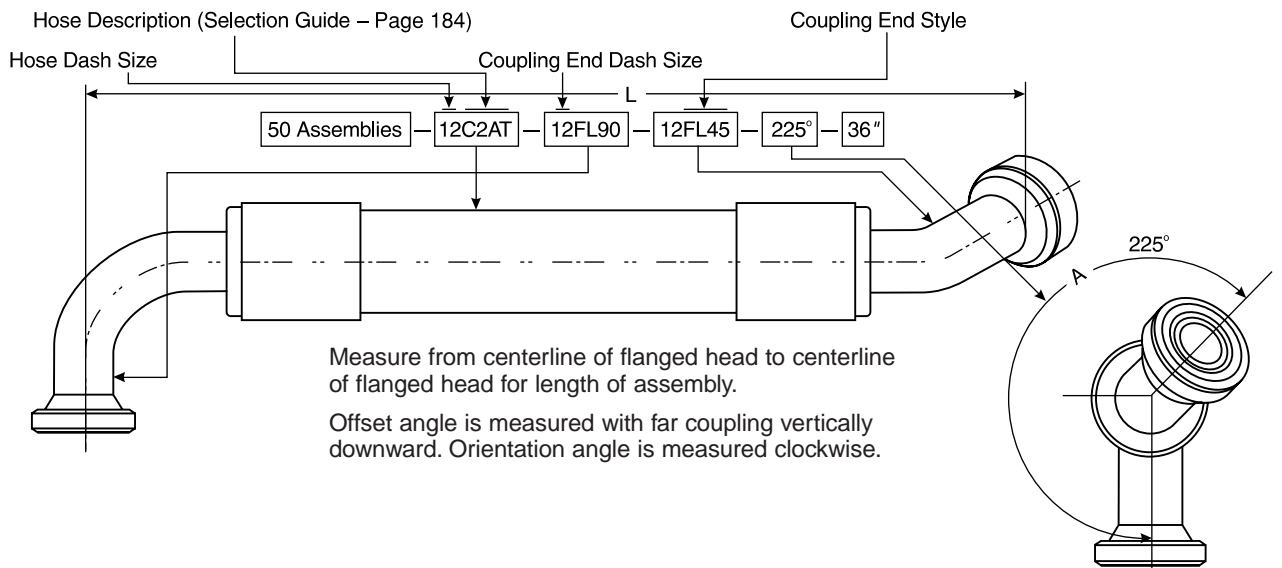
Rated working pressure of the application should always determine selection of hose. Used up to the recommended

rated working pressure, the hose will provide normal service life before replacement is required.

When new, the hose described in this catalog will meet or exceed the minimum burst pressure listed in the hose specification tables. However — as with any hose in the industry — after the hose has been impulsed for a length of time, minimum burst pressure will decrease from the figure shown in the specification tables.

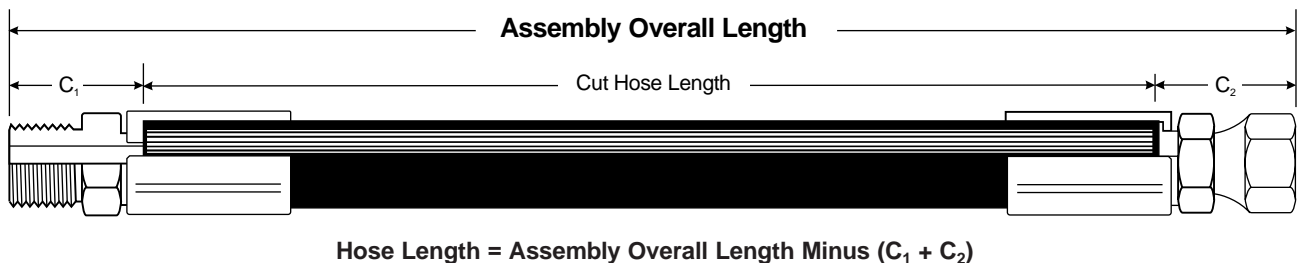
Temperature ranges specified for specific hoses refer to recommended temperature limits of fluids being conveyed or ambient temperatures. Exceeding these limits will cause degradation of material compounds and reduce hose service life.

Example:



How to Make Hose Assemblies of Specific Lengths

Select the hose and couplings required to make the desired hydraulic assembly. Note the "cut-off" measurement "C" for each of the couplings as listed in the specifications tables. A section is reproduced here:



Cut-off value C is the length of that part of the coupling not directly in contact with or applied to the hose. Therefore, subtract the sum of the two C values from the total length of the assembly and you will have the approximate hose length to be replaced.

Length Tolerances for Hydraulic Hose Assemblies and Specified Hose Lengths*

Length	Tolerance
For lengths from 0 up to and including 12"	± 1/8"
For lengths above 12" up to and including 18"	± 3/16"
For lengths above 18" up to and including 36"	± 1/4"
For lengths above 36"	± 1% of length measured to the nearest 1/8".

*Reprinted from National Hose Assemblies Manufacturers Association NHAM-STD-2

Coupling Selection

Gates Hydraulic Fitting Nomenclature

Code	Description
BJ FABX FBFFX	Banjo Fitting Female Air Brake Swivel Female British Standard Pipe Parallel Flat Faced Thread Swivel
FBO FBSPPX FBX90BL	Female Braze-on Stem Female British Standard Pipe Parallel Thread Swivel Female British Standard Pipe Parallel
FDHX FDLX FDLORX	Female DIN Heavy Swivel Female DIN Light Swivel Female DIN O-ring Swivel
FFN FFORX FFS	Female Flareless Nut Female Flat-Face O-ring Swivel Female Flareless Sleeve
FG FJISX FJX	Female Special Grease Thread Female Japanese Industrial Standard Swivel Female JIC Swivel
FKX FL FLC	Komatsu Female Swivel SAE Flange Code 61 Flange — Caterpillar
FLH FLK FMX	SAE Flange Code 62 Komatsu Flange Female Mega Seal Swivel
FP FPX FSX	Female Pipe Thread Female Pipe Thread Swivel Female SAE Swivel
FZX HLE MB	Parker Triple Thread Hose Length Extender Male BOSS Thread (SAE Straight Thread)
MBS MBSPP MBSPPOR	Metric Bite Sleeve Male British Standard Pipe Parallel Thread Male British Standard Pipe Parallel Thread O-ring
MBSPT MBX MDH	Male British Standard Pipe Tapered Thread Male BOSS Thread Swivel (SAE Straight Thread) Male DIN Heavy
MDL MFA MFFOR	Male DIN Light Male Flareless Stem Assembly Male Flat-Face O-ring
MIX MJ MJL	Male Inverted Thread Swivel Male JIC Thread Male JIC Long
MKB MNH MNL	Male Kobelco Style Metric Nut Heavy Metric Nut Light
MP MPAPI MPG	Male Pipe Thread API Male Solid Male Special Grease Fitting
MPLN MPX MS	Male Pipe Long Nose Male Pipe Thread Swivel Male SAE Thread
MSP ORFF PL PWX	Metric Stand Pipe Stem O-ring Flat-Face Press-Lok™ Stem Pressure Washer Swivel

Press-Lok is a trademark of The Gates Rubber Company.

Coupling Selection — *continued*

Thread End Dash Sizes, Descriptions and Dimensions — *continued*

Coupling Dash Size and End Style

Coupling Dash Size is a shorthand method of denoting the size of a particular end fitting. See *Thread Size Dash Numbers Table to the right*.

EXAMPLE: 12MP denotes a 3/4" male pipe thread end fitting. The corresponding thread description for a 3/4" pipe thread is 3/4-14 NPTF solid male.

EXAMPLE: 12FJX denotes a 3/4" female JIC swivel (37° seat) end fitting. The corresponding thread description for a 3/4" JIC thread is 1 1/6-12 JIC 37° flare swivel female.

EXAMPLE: 12FL denotes a 3/4" SAE standard pressure (Code 61) flange fitting. This is the standard fitting description for a 3/4" SAE standard pressure flange.

Thread End Catalog Descriptions

Gates coupling ends shown on page 206 are accepted as industry standards. See detailed catalog listings for availability of specific hose/coupling combinations, detailed descriptions, thread end configurations such as swivels and bent tubes and special ends.

Thread End Identification Tools see *Hydraulic Technical Data on pages 163 and 166*.

Thread Size Dash Numbers

Dash Number	Thread Size		
	NPTF-NPSM	SAE (45° Flare)	JIC (37° Flare) SAE O-Ring Boss
-2	1/8-27	—	—
-3	—	—	3/8-24
-4	1/4-18	7/16-20	7/16-20
-5	—	1/2-20	1/2-20
-6	3/8-18	5/8-18	9/16-18
-8	1/2-14	3/4-16	3/4-16
-10	—	7/8-14	7/8-14
-12	3/4-14	1 1/6-14	1 1/6-12
-14	—	—	1 3/8-12
-16	1-11 1/2	—	1 5/8-12
-20	1 1/4-11 1/2	—	1 5/8-12
-24	1 1/2-11 1/2	—	1 7/8-12
-32	2-11 1/2	—	2 1/2-12

O-ring Flange dash numbers are determined by nominal flange size, or diameter of flange head which determines the O-ring size.

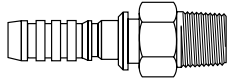
NOTE: Refer to Hydraulic Technical Data on pages 163 and 166 for thread end identification tools and instructions available for coupling identification.

Selecting The Proper Hose

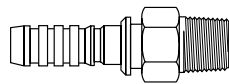
Dash Numbers

Dash No.	Hose I.D. (Inches)			
	All Except C5 Series, C14 and PolarSeal		C5 Series, C14 and PolarSeal	
	Inches	Millimeters	Inches	Millimeters
-3	3/16	4.8	—	—
-4	1/4	6.4	3/16	4.8
-5	5/16	7.9	1/4	6.4
-6	3/8	9.5	5/16	7.9
-8	1/2	12.7	13/32	10.3
-10	5/8	15.9	1/2	12.7
-12	3/4	19.0	5/8	15.9
-14	7/8	22.2	—	—
-16	1	25.4	7/8	22.2
-20	1 1/4	31.8	1 1/8	28.6
-24	1 1/2	38.1	1 3/8	34.9
-32	2	50.8	1 3/4	46.0
-40	2 1/2	63.5	2 3/8	60.3
-48	3	76.2	—	—
-56	3 1/2	88.9	—	—
-60	4	101.6	—	—

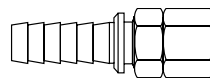
Coupling/Thread Configurations



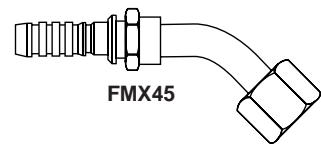
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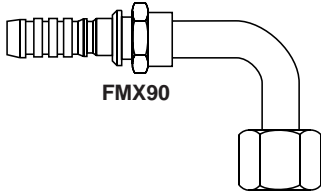
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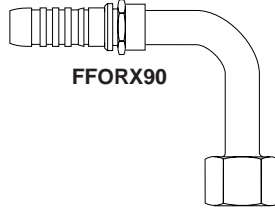
FMX



FMX45



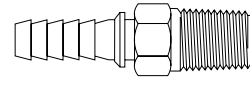
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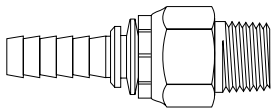
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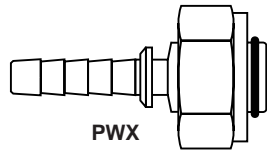
ORFF



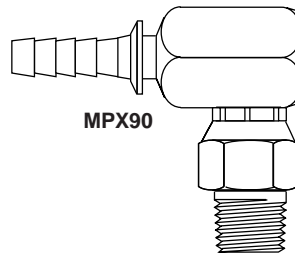
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MPX



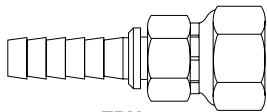
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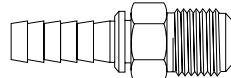
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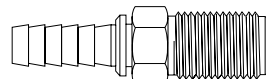
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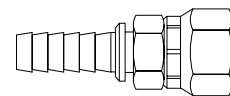
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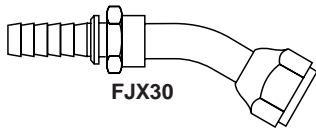
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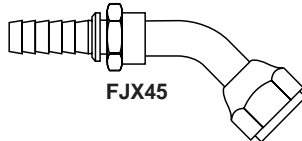
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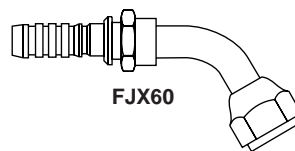
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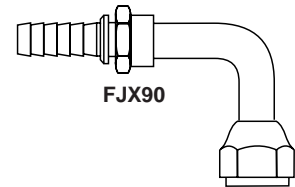
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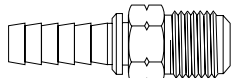
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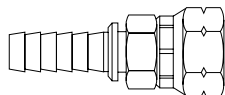
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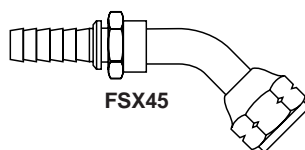
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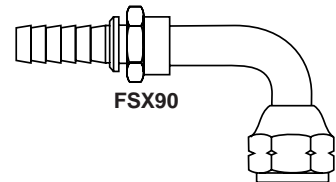
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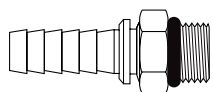
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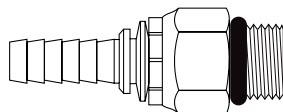
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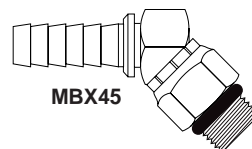
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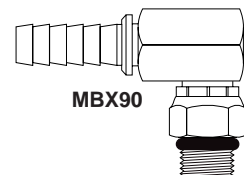
MB



MBX

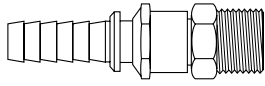


MBX45

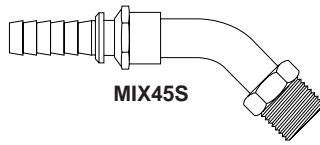


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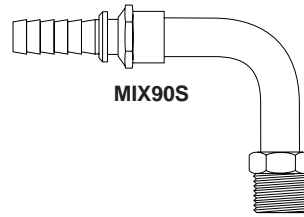
Coupling/Thread Configurations — continued



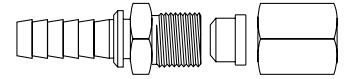
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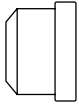
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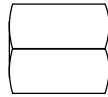
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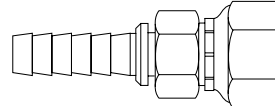
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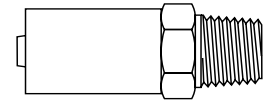
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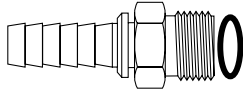
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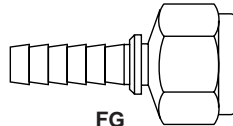
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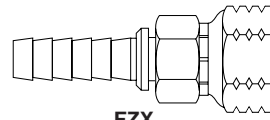
MPG/MPGB



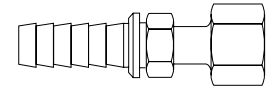
MFFOR



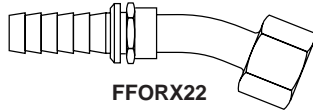
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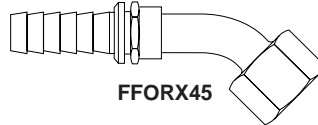
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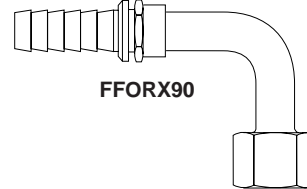
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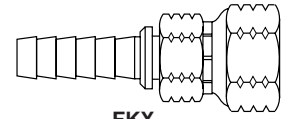
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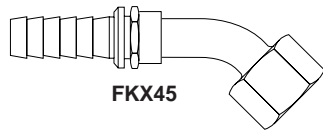
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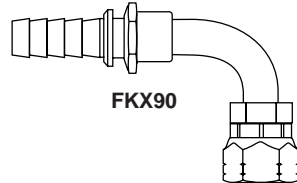
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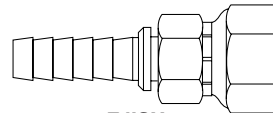
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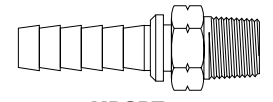
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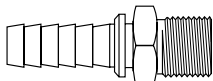
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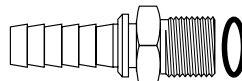
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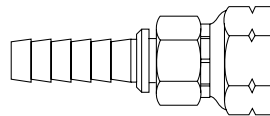
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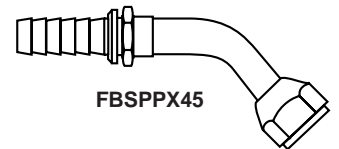
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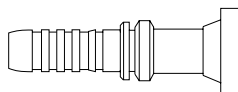
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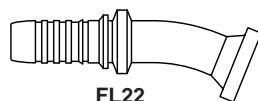
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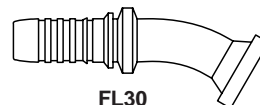
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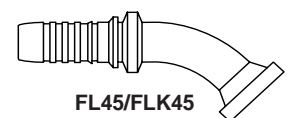
FL/FLK



FL22

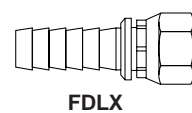
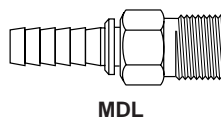
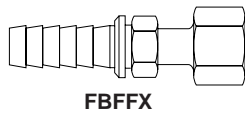
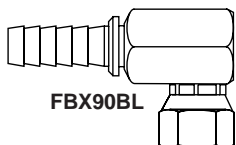
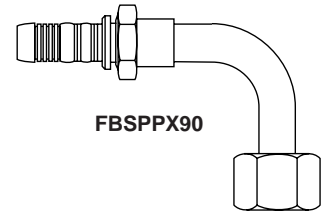
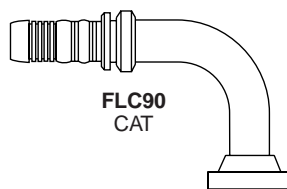
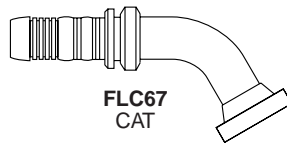
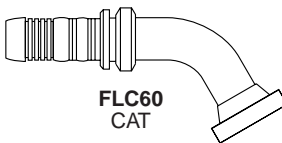
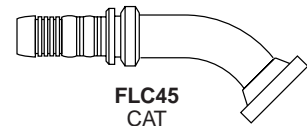
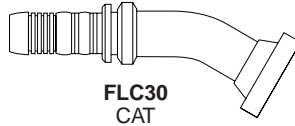
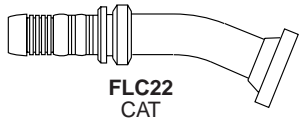
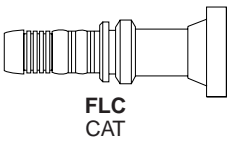
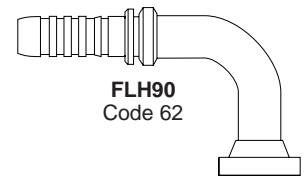
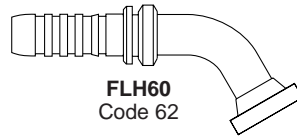
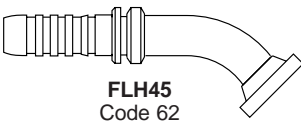
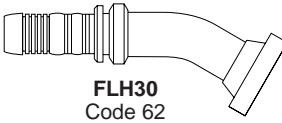
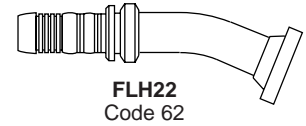
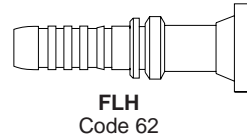
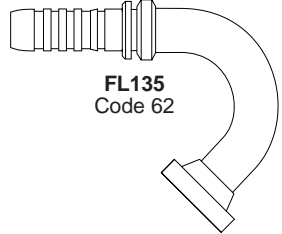
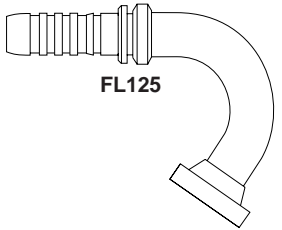
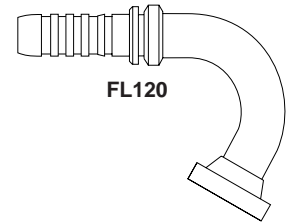
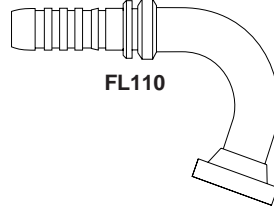
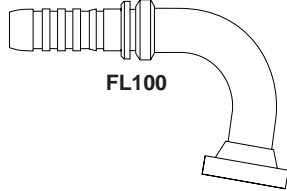
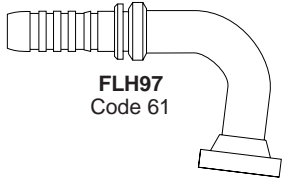
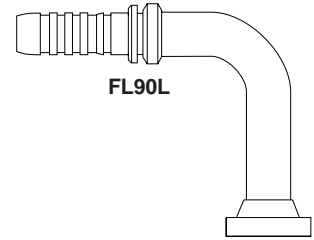
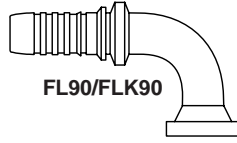
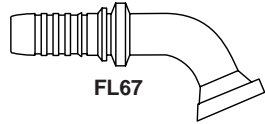
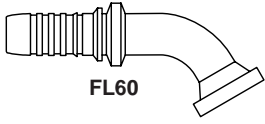


FL30

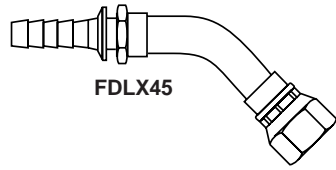


FL45/FLK45

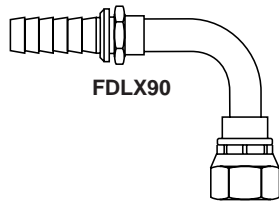
Coupling/Thread Configurations — continued



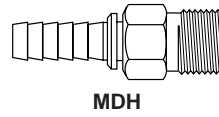
Coupling/Thread Configurations — continued



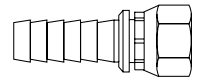
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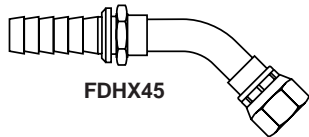
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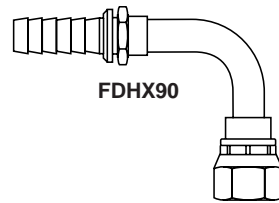
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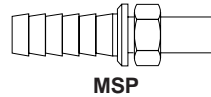
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FDHX45



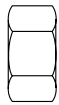
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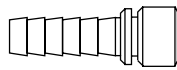
MSP



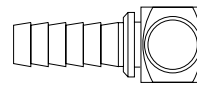
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BS



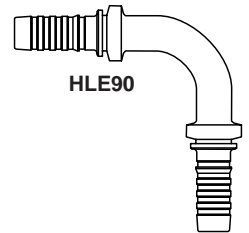
Metric Nut
MHL/MNH



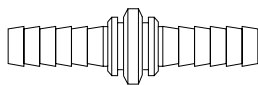
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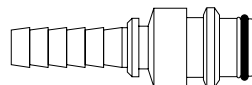
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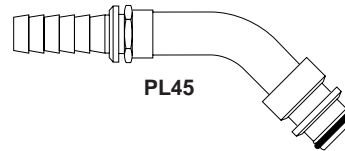
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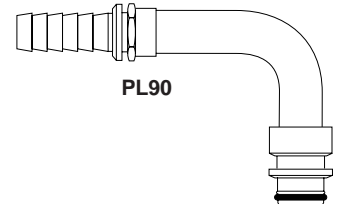
HLE



PL



PL45



PL90