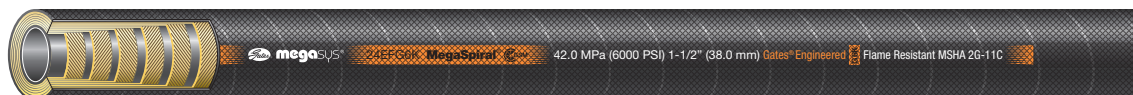


## HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

### EFG6K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.80	20.2	6000	42.0	24000	168.0	65	71	6EFG6K
-8	12	1/2	0.95	24.0	6000	42.0	24000	168.0	90	89	8EFG6K
-10	16	5/8	1.09	27.6	6000	42.0	24000	168.0	100	115	10EFG6K
-12	19	3/4	1.24	31.4	6000	42.0	24000	168.0	120	144	12EFG6K
-16	25	1	1.53	38.7	6000	42.0	24000	168.0	150	223	16EFG6K
-20	31	1.1/4	1.97	50.0	6000	42.0	24000	168.0	210	399	20EFG6K
-24	38	1.1/2	2.26	57.4	6000	42.0	24000	168.0	250	482	24EFG6K
-32	51	2	2.80	71.1	6000	42.0	24000	168.0	635	719	32EFG6K

#### RECOMMENDED FOR

Extremely high pressure and high impulse hydraulic applications.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Four (six for -20 to -32) alternating layers of spiralled, high tensile steel wire.

#### COVER

CR (Chloroprene) based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 3862 R15. SAE 100R15.

#### COUPLINGS

-6 to -20: GlobalSpiral; -24, -32: GlobalSpiral Maximum.

#### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

#### CHARACTERISTICS/BENEFITS

Up to 40% of EN 856 4SP/4SH bend radius at rated working pressure.

Extremely flexible.

Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of SAE 100R15 bend radii (except -32).

Meets or exceeds performance requirements of EN 856 4SP (-8 to -32) and EN 856 4SH (-12 to -32).

EFG6K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

#### OPTIONAL



EFG6K-MTF: the complete range of EFG6K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG6K cover as per ISO 6945, superior ozone and weathering resistance.



EFG6KL: for low-temperature applications, Gates recommends the EFG6KL range down to -57°C constant. Please refer to page 56.

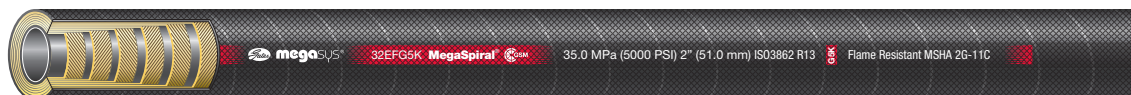
#### IMPORTANT



Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications or for constant bending at minimum bend radius.

## HYDRAULIC HOSE CONSTANT PRESSURE

### EFG5K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.80	20.2	5000	35.0	20000	140.0	65	71	6EFG5K
-8	12	1/2	0.95	24.0	5000	35.0	20000	140.0	90	89	8EFG5K
-10	16	5/8	1.09	27.6	5000	35.0	20000	140.0	100	115	10EFG5K
-12	19	3/4	1.24	31.4	5000	35.0	20000	140.0	120	144	12EFG5K
-16	25	1	1.53	38.7	5000	35.0	20000	140.0	150	223	16EFG5K
-20	31	1.1/4	1.97	50.0	5000	35.0	20000	140.0	210	399	20EFG5K
-24	38	1.1/2	2.26	57.4	5000	35.0	20000	140.0	250	482	24EFG5K
-32	51	2	2.80	71.1	5000	35.0	20000	140.0	635	719	32EFG5K

#### RECOMMENDED FOR

Extremely high pressure and high impulse hydraulic applications.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Four (six for -20 to -32) alternating layers of spiralled, high tensile steel wire.

#### COVER

CR (Chloroprene) based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 3862 R13. EN 856 R13. SAE 100R13.

#### COUPLINGS

-6 to -20: GlobalSpiral; -24, -32: GlobalSpiral Maximum.

#### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

#### CHARACTERISTICS/BENEFITS

Up to 40% of EN 856 4SP/4SH bend radius at rated working pressure.

Extremely flexible.

Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of EN 856 R13 and SAE 100R13 bend radii (except -32).

Meets or exceeds performance requirements of EN 856 4SP (-10 to -32) and EN 856 4SH (-20 to -32).

EFG5K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

#### OPTIONAL



EFG5K-MTF: the complete range of EFG5K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG5K cover as per ISO 6945, superior ozone and weathering resistance.



EFG5KL: for low-temperature applications, Gates recommends the EFG5KL range down to -57°C constant. Please refer to page 57.

#### IMPORTANT

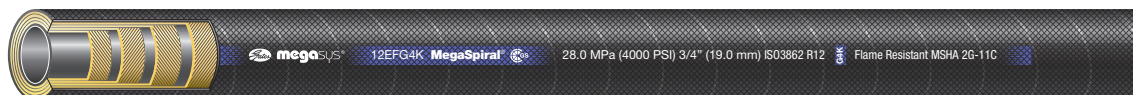


Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications or for constant bending at minimum bend radius.

## HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

### EFG4K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.80	20.2	4000	28.0	16000	112.0	65	71	6EFG4K
-8	12	1/2	0.95	24.0	4000	28.0	16000	112.0	90	89	8EFG4K
-10	16	5/8	1.09	27.6	4000	28.0	16000	112.0	100	113	10EFG4K
-12	19	3/4	1.21	30.7	4000	28.0	16000	112.0	120	128	12EFG4K
-16	25	1	1.50	38.0	4000	28.0	16000	112.0	150	188	16EFG4K
-20	31	1.1/4	1.85	47.0	4000	28.0	16000	112.0	210	283	20EFG4K

#### RECOMMENDED FOR

Extremely high pressure and high impulse hydraulic applications.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Four alternating layers of spiralled, high tensile steel wire.

#### COVER

CR (Chloroprene) based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 3862 R12. EN 856 R12. SAE 100R12.

#### COUPLINGS

GlobalSpiral.

#### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

#### CHARACTERISTICS/BENEFITS

40% of EN 856 4SP bend radius at rated working pressure.

Most flexible EN 856 R12 / SAE 100R12 hose in the industry.

Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of EN 856 R12 and SAE 100R12 bend radii.

Meets or exceeds performance requirements of EN 856 4SP (-16, -20).

EFG4K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

#### OPTIONAL



EFG4K-MTF: the complete range of EFG4K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG4K cover as per ISO 6945, superior ozone and weathering resistance.



EFG4KL: for low-temperature applications, Gates recommends the EFG4KL range down to -57°C constant. Please refer to page 58.

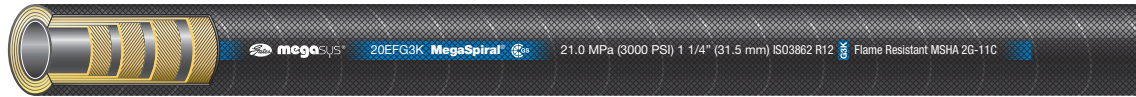
#### IMPORTANT



**Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications or for constant bending at minimum bend radius.**

## HYDRAULIC HOSE CONSTANT PRESSURE

### EFG3K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-20	31	1.1/4	1.85	47.0	3000	21.0	12000	84.0	210	282	20EFG3K
-24	38	1.1/2	2.11	53.6	3000	21.0	12000	84.0	250	320	24EFG3K
-32	51	2	2.63	66.8	3000	21.0	12000	84.0	635	439	32EFG3K

#### RECOMMENDED FOR

Extremely high pressure and high impulse hydraulic applications.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Four alternating layers of spiralled, high tensile steel wire.

#### COVER

CR (Chloroprene) based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 3862 R12. EN 856 R12. SAE 100R12.

#### COUPLINGS

-20: GlobalSpiral; -24 to -32: GlobalSpiral Plus.

#### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

#### CHARACTERISTICS/BENEFITS

Up to 40% of EN 856 4SP bend radius at rated working pressure.

Extremely flexible.

Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of EN 856 R12 and SAE 100R12 bend radii (except -32).

Meets or exceeds performance requirements of EN 856 4SP.

EFG3K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

#### OPTIONAL



EFG3K-MTF: the complete range of EFG3K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG3K cover as per ISO 6945, superior ozone and weathering resistance.

#### IMPORTANT

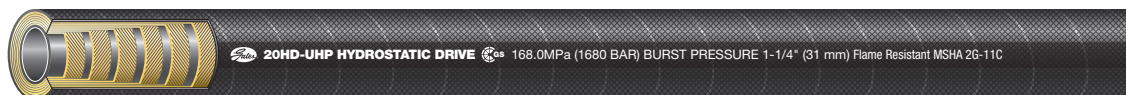


**Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications or for constant bending at minimum bend radius.**

## HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

### HD-UHP



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-10	16	5/8	1.09	27.6	Application Sign-off		24000	168.0	100	115	10HD-UHP
-12	19	3/4	1.24	31.4			24000	168.0	120	144	12HD-UHP
-16	25	1	1.53	38.7			24000	168.0	150	223	16HD-UHP
-20	31	1.1/4	1.97	50.0			24000	168.0	210	399	20HD-UHP

#### RECOMMENDED FOR

Extremely high pressure hydrostatic drive applications.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Four (six for -20) alternating layers of spiralled, high tensile steel wire.

#### COVER

CR (Chloroprene) based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Gates proprietary.

#### COUPLINGS

-10 to -20: GlobalSpiral.

#### CHARACTERISTICS/BENEFITS

40% of EN 856 4SP/4SH bend radius.

Extremely flexible.

HD-UHP hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

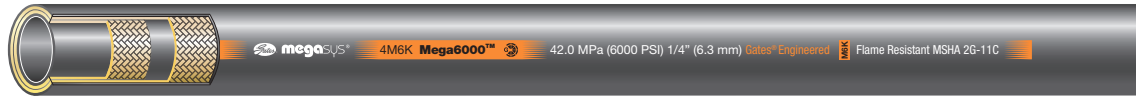
#### IMPORTANT



**Please consult Gates' Product Application Engineers for product application validation.**

## HYDRAULIC HOSE CONSTANT PRESSURE

### M6K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.58	14.9	6000	42.0	24000	168.0	50	35	4M6K

#### RECOMMENDED FOR

High pressure hydraulic applications. Easy to route and to install in tight areas.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Two braids of high tensile steel wire.

#### COVER

NBR/PVC based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Gates proprietary.

#### COUPLINGS

MegaCrimp®.

#### TYPE APPROVALS

DNV, GL, LR and BV.

#### CHARACTERISTICS/BENEFITS

70% of EN 857 2SC and 50% of EN 853 2SN bend radius at rated working pressure.

Superior flex impulse performance: tested to 600,000 impulse cycles.

Meets or exceeds EN 857 2SC performance requirements.

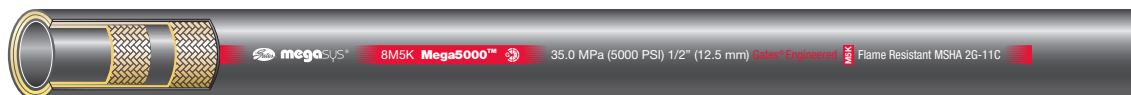
Lightweight.

M6K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

## HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

### M5K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.54	13.7	5000	35.0	20000	140.0	50	30	4M5K
-5	8	5/16	0.61	15.4	5000	35.0	20000	140.0	55	34	5M5K
-6	10	3/8	0.69	17.5	5000	35.0	20000	140.0	65	41	6M5K
-8	12	1/2	0.86	21.9	5000	35.0	20000	140.0	90	66	8M5K

<b>RECOMMENDED FOR</b>	High pressure hydraulic applications. Easy to route and to install in tight areas.
<b>TUBE</b>	NBR (Nitrile) based.
<b>REINFORCEMENT</b>	Two braids of high tensile steel wire.
<b>COVER</b>	NBR/PVC based. MSHA approved.
<b>TEMPERATURE RANGE</b>	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
<b>STANDARDS</b>	Gates proprietary.
<b>COUPLINGS</b>	MegaCrimp®.
<b>TYPE APPROVALS</b>	DNV, GL, LR and BV.
<b>CHARACTERISTICS/BENEFITS</b>	<p>70% of EN 857 2SC and 50% of EN 853 2SN bend radius at rated working pressure.</p> <p>Superior flex impulse performance: tested to 600,000 impulse cycles.</p> <p>Meets or exceeds EN 857 2SC performance requirements.</p> <p>Lightweight.</p> <p>M5K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.</p>

#### OPTIONAL



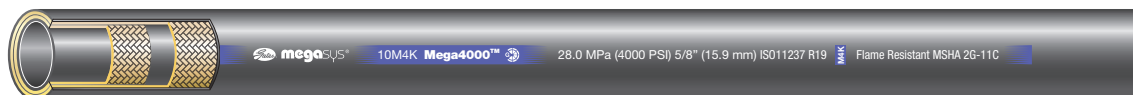
M5K-MTF: The complete range of M5K (except -5) is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M5K cover as per ISO 6945, superior ozone and weathering resistance.



M5K-XTF: the complete range of M5K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard M5K cover as per ISO 6945.

## HYDRAULIC HOSE CONSTANT PRESSURE

### M4K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.54	13.7	4000	28.0	16000	112.0	40	33	4M4K
-5	8	5/16	0.61	15.4	4000	28.0	16000	112.0	45	34	5M4K
-6	10	3/8	0.69	17.5	4000	28.0	16000	112.0	50	46	6M4K
-8	12	1/2	0.82	20.8	4000	28.0	16000	112.0	70	51	8M4K
-10	16	5/8	0.98	25.0	4000	28.0	16000	112.0	75	74	10M4K
-12	19	3/4	1.15	29.1	4000	28.0	16000	112.0	95	93	12M4K

#### RECOMMENDED FOR

High pressure hydraulic applications. Easy to route and to install in extremely tight areas.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Two braids of high tensile steel wire.

#### COVER

NBR/PVC based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 11237 R19. SAE 100R19.

#### COUPLINGS

MegaCrimp®.

#### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

#### CHARACTERISTICS/BENEFITS

50% of EN 857 2SC and 40% of EN 853 2SN bend radius at rated working pressure.

Alternative to spiral hoses in high pressure lines where flexibility is required.

Superior flex impulse performance: tested to 600,000 impulse cycles.

Meets or exceeds EN 857 2SC performance requirements.

Lightweight.

M4K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

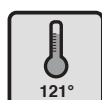
#### OPTIONAL



M4K-MTF: the complete range of M4K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M4K cover as per ISO 6945, superior ozone and weathering resistance.



M4K-XTF: the complete range of M4K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard M4K cover as per ISO 6945.



For high-temperature applications, Gates recommends the M4KH hose range up to +121°C constant. Please refer to page 59.



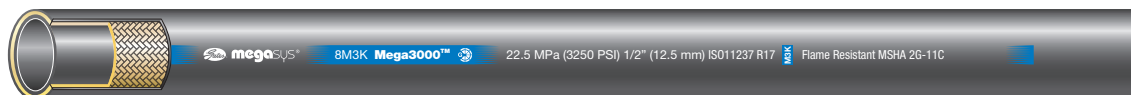
M4KL: for low-temperature applications, Gates recommends the M4KL range down to -57°C constant. Please refer to page 60.



## HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

### M3K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.48	12.2	3250	22.5	13000	90.0	40	17	4M3K
-5	8	5/16	0.59	15.1	3250	22.5	13000	90.0	45	26	5M3K
-6	10	3/8	0.63	16.0	3250	22.5	13000	90.0	50	28	6M3K
-8	12	1/2	0.80	20.2	3250	22.5	13000	90.0	70	41	8M3K
-10	16	5/8	0.99	25.2	3250	22.5	13000	90.0	75	73	10M3K
-12	19	3/4	1.14	29.0	3250	22.5	13000	90.0	95	91	12M3K
-16	25	1	1.48	37.7	3250	22.5	13000	90.0	115	155	16M3K

#### RECOMMENDED FOR

High pressure hydraulic applications. Easy to route and to install in extremely tight areas.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

-4 to -8: one braid of high tensile steel wire; -10 to -16: two braids of high tensile steel wire.

#### COVER

NBR/PVC based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 11237 R17. SAE 100R17.

#### COUPLINGS

MegaCrimp®.

#### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

#### CHARACTERISTICS/BENEFITS

70% of EN 857 1SC/2SC and 50% of EN 853 1SN/2SN bend radius at rated working pressure.

Superior flex impulse performance: tested to 600,000 impulse cycles.

Exceeds working pressure requirements of R17.

Meets or exceeds EN 857 1SC/2SC performance requirements.

Lightweight.

M3K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

#### OPTIONAL



M3K-MTF: the complete range of M3K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M3K cover as per ISO 6945, superior ozone and weathering resistance.



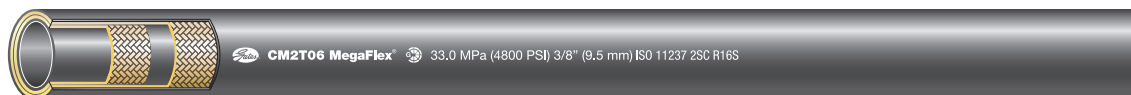
M3K-XTF: the complete range of M3K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard M3K cover as per ISO 6945.



For high-temperature applications, Gates recommends the M3KH hose range up to +121°C constant. Please refer to page 61.

## HYDRAULIC HOSE TO EN / SAE STANDARD

### CM2T



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.55	14.1	5800	40.0	23200	160.0	50	31	CM2T04
-5	8	5/16	0.61	15.5	5000	35.0	20000	140.0	55	35	CM2T05
-6	10	3/8	0.70	17.7	4800	33.0	19200	132.0	65	42	CM2T06
-8	12	1/2	0.82	20.8	4000	27.5	16000	110.0	90	51	CM2T08
-10	16	5/8	0.97	24.6	3625	25.0	14500	100.0	100	70	CM2T10
-12	19	3/4	1.09	27.8	3100	21.5	12400	86.0	120	81	CM2T12
-16	25	1	1.41	35.8	2400	16.5	9600	66.0	150	115	CM2T16

#### RECOMMENDED FOR

High pressure hydraulic applications. Easy to route and to install in tight areas.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Two braids of high tensile steel wire.

#### COVER

SBR based.

#### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 11237 2SC R16S. EN 857 2SC. SAE 100R16.

#### COUPLINGS

MegaCrimp®.

#### TYPE APPROVALS

DNV, GL, LR and BV.

#### CHARACTERISTICS/BENEFITS

70% of EN 857 2SC bend radius at rated working pressure.

Superior flex impulse performance.

Lightweight.

CM2T hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

#### OPTIONAL



CM2T-MTF: the complete range of CM2T is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard CM2T cover as per ISO 6945, superior ozone and weathering resistance.

#### IMPORTANT



**Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications or for constant bending at minimum bend radius.**

## HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

### M2T



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-20	31	1.1/4	1.67	42.3	2300	15.9	9200	63.6	210	225	20M2T
-24	38	1.1/2	2.00	50.8	2000	14.0	8000	56.0	254	263	24M2T
-32	51	2	2.53	64.3	1500	10.3	6000	41.2	318	335	32M2T

#### RECOMMENDED FOR

High pressure hydraulic applications. Easy to route and to install in tight areas.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Two braids of high tensile steel wire.

#### COVER

NBR (Nitrile) based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 11237 2SC R16S. SAE 100R16 (-20).

Exceeds ISO 1436 2SN R2ATS. EN 853 2SN. SAE 100R2AT.

#### COUPLINGS

-20: MegaCrimp® ; -24, -32: GlobalSpiral Plus.

#### TYPE APPROVALS

DNV and ABS.

#### CHARACTERISTICS/BENEFITS

75% of ISO 11237 2SC (-20) and 50% of ISO 1436 2SN R2 (-24 and -32) bend radius at rated working pressure.

Superior flex impulse performance.

Higher working pressure than ISO 11237 2SC R16 (-20) and ISO 1436 2SN R2 (-24 and -32).








Lightweight.

M2T hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

## HYDRAULIC HOSE TO EN / SAE STANDARD

### CM2TDL-XTF



												
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.	
-6	10	3/8	0.70	17.7	4800	33.0	19200	132.0	65	86	6CM2TDL-XTF	
-8	12	1/2	0.82	20.8	4000	27.5	16000	110.0	90	104	8CM2TDL-XTF	

#### RECOMMENDED FOR

High pressure and return lines such as boom arm and forklift applications.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Two braids of high tensile steel wire.

#### COVER

NBR (Nitrile) based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 11237 2SC R16S. EN 857 2SC. SAE 100R16.

#### COUPLINGS

MegaCrimp®.

#### CHARACTERISTICS/BENEFITS

70% of EN 857 2SC bend radius at rated working pressure.

Superior flex impulse performance.

Lightweight.

CM2T - Twin hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

No need to use clamps as the two lines are vulcanised together to form one single unit.

Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard CM2T cover as per ISO 6945.

#### IMPORTANT



**Gates recommends minimum split length of 250 mm depending on the application. Do not expose hose reinforcement when splitting hoses.**

## HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

### G2



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.58	15.0	5800	40.0	23200	160.0	50	35	4G2
-5	8	5/16	0.64	16.3	5000	35.0	20000	140.0	55	39	5G2
-6	10	3/8	0.73	18.8	4800	33.0	19200	132.0	65	51	6G2
-8	12	1/2	0.86	21.8	4000	27.5	16000	112.0	90	61	8G2
-10	16	5/8	0.98	25.1	3625	25.0	14500	100.0	100	73	10G2
-12	19	3/4	1.14	29.0	3100	21.5	12400	86.0	120	91	12G2
-16	25	1	1.48	37.6	2400	16.5	9600	66.0	150	129	16G2
-20	31	1.1/4	1.87	47.5	1825	12.5	7300	50.0	210	225	20G2
-24	38	1.1/2	2.15	54.6	1300	9.0	5200	36.0	250	263	24G2
-32	51	2	2.65	67.3	1175	8.0	4700	32.0	315	335	32G2

#### RECOMMENDED FOR

High pressure hydraulic applications.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Two braids of high tensile steel wire.

#### COVER

NBR/PVC based. MSHA approved.

#### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 1436 2SN R2ATS. EN 853 2SN. SAE 100R2AT.

#### COUPLINGS

-4 to -20: MegaCrimp®; -24, -32: GlobalSpiral Plus.

#### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

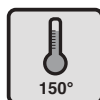
#### CHARACTERISTICS/BENEFITS

50% of SAE 100R2 bend radius at rated working pressure.

Superior flex impulse performance: tested to 600,000 impulse cycles.

G2 hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

#### OPTIONAL



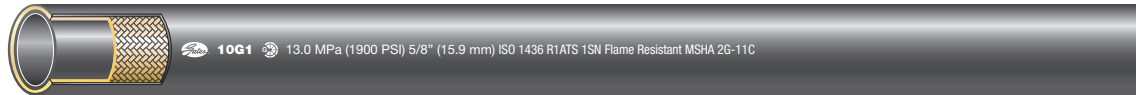
G2XH: For high-temperature applications, Gates recommends the G2XH hose range up to +150°C constant. Please refer to page 62.



G2L: for low-temperature applications, Gates recommends the G2L range down to -57°C constant. Please refer to page 64.

# HYDRAULIC HOSE TO EN / SAE STANDARD

## G1



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.53	13.5	3250	22.5	13000	90.0	50	22	4G1
-5	8	5/16	0.59	15.1	3100	21.5	12400	86.0	55	26	5G1
-6	10	3/8	0.69	17.1	2600	18.0	10400	72.0	65	32	6G1
-8	12	1/2	0.82	20.3	2325	16.0	9300	64.0	90	39	8G1
-10	16	5/8	0.94	23.5	1900	13.0	7600	52.0	100	46	10G1
-12	19	3/4	1.10	27.6	1525	10.5	6100	42.0	120	59	12G1
-16	25	1	1.41	35.4	1275	9.0	5100	36.0	150	84	16G1
-20	31	1.1/4	1.71	43.4	925	6.4	3700	25.6	210	128	20G1
-24	38	1.1/2	1.96	49.8	725	5.0	2900	20.0	250	145	24G1
-32	51	2	2.52	64.0	600	4.2	2400	16.8	315	205	32G1

### RECOMMENDED FOR

Medium pressure hydraulic applications.

### TUBE

NBR (Nitrile) based.

### REINFORCEMENT

One braid of high tensile steel wire.

### COVER

NBR/PVC based. MSHA approved.

### TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

### STANDARDS

Exceeds ISO 1436 1SN R1ATS. EN 853 1SN. SAE 100R1AT.

### COUPLINGS

-4 to -20: MegaCrimp®; -24, -32: GlobalSpiral Plus.

### TYPE APPROVALS

DNV, GL, LR, BV and ABS.

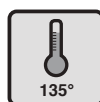
### CHARACTERISTICS/BENEFITS

50% of SAE 100R1 bend radius at rated working pressure.

Superior flex impulse performance: tested to 600,000 impulse cycles.

G1 hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

### OPTIONAL



G1H: For high-temperature applications, Gates recommends the G1H hose range up to +135°C constant. Please refer to page 65.

## HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

### TH8



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.61	15.5	5000	35.0	20000	140.0	50	18	4TH8
-6	10	3/8	0.76	19.1	4000	28.0	16000	112.0	65	31	6TH8
-8	12	1/2	0.87	22.1	3500	24.5	14000	98.0	100	34	8TH8
-12	19	3/4	1.13	28.7	2250	15.8	9000	63.2	165	38	12TH8
-16	25	1	1.45	36.8	2000	14.0	8000	56.0	250	57	16TH8

#### RECOMMENDED FOR

High pressure hydraulic applications, especially material handling equipment with mast and pulley systems like forklifts, aerial lifting, hydraulic boom cranes and many others.

#### TUBE

PA (Nylon) based.

#### REINFORCEMENT

Two fibre braids.

#### COVER

PU (Polyurethane) based. Black TH8 is perforated for use in general hydraulic and pneumatic service.

#### TEMPERATURE RANGE

-53°C to +93°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 3949 R8. EN 855 R8. SAE 100R8.

#### COUPLINGS

MegaCrimp®.

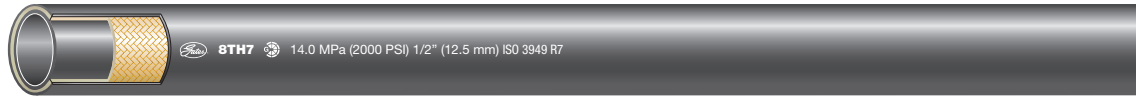
#### OPTIONAL



TH8NC: Sizes -04, -06 and -08 are also available in a non-conductive version. TH8NC has an orange polyurethane cover and is non-perforated for applications requiring electrical non-conductivity. TH8NC meets the SAE 100R8 Electrical Conductivity Test.

## HYDRAULIC HOSE TO EN / SAE STANDARD

### TH7



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.50	12.7	2750	19.2	11000	76.8	30	8	4TH7
-5	8	5/16	0.56	14.7	2500	17.5	10000	70.0	45	10	5TH7
-6	10	3/8	0.64	16.4	2250	15.8	9000	63.2	50	14	6TH7
-8	12	1/2	0.80	20.3	2000	14.0	8000	56.0	75	21	8TH7
-12	19	3/4	1.05	26.6	1250	8.7	5000	34.8	130	29	12TH7
-16	25	1	1.32	33.4	1000	7.0	4000	28.0	250	40	16TH7

#### RECOMMENDED FOR

High pressure hydraulic applications, especially material handling equipment with mast and pulley systems like forklifts, aerial lifting, hydraulic boom cranes and many others.

#### TUBE

PA (Nylon) based.

#### REINFORCEMENT

-4 to -6: spiralled synthetic fibre; -8 to -12: one fibre braid.

#### COVER

PU (Polyurethane) based. Black TH7 is perforated for use in general hydraulic and pneumatic service.

#### TEMPERATURE RANGE

-53°C to +93°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 3949 R7. EN 855 R7. SAE 100R7.

#### COUPLINGS

MegaCrimp®.

#### OPTIONAL



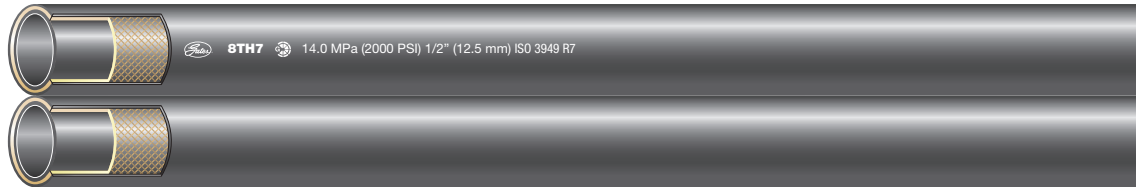
TH7NC: The complete range [-4 up to -16] is also available in a non-conductive version. TH7NC has an orange polyurethane cover and is non-perforated for applications requiring electrical non-conductivity. TH7NC meets the SAE 100R7 Electrical Conductivity Test.



## HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

### TH7DL



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.50	12.7	2750	19.2	11000	76.8	30	17	4TH7DL
-5	8	5/16	0.56	14.7	2500	17.5	10000	70.0	45	21	5TH7DL
-6	10	3/8	0.64	16.4	2250	15.8	9000	63.2	50	28	6TH7DL
-8	12	1/2	0.80	20.3	2000	14.0	8000	56.0	75	42	8TH7DL

#### RECOMMENDED FOR

High pressure hydraulic applications, especially material handling equipment with mast and pulley systems like forklifts, aerial lifting, hydraulic boom cranes and many others.

#### TUBE

PA (Nylon) based.

#### REINFORCEMENT

-4 to -6: spiralled synthetic fibre; -8 to -12: one fibre braid.

#### COVER

PU (Polyurethane) based. Black TH7DL is perforated for use in general hydraulic and pneumatic service.

#### TEMPERATURE RANGE

-53°C to +93°C. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 3949 R7. EN 855 R7. SAE 100R7.

#### COUPLINGS

MegaCrimp®.

#### OPTIONAL










TH7DLNC: Sizes -04, -06 and -08 are also available in a non-conductive version. TH7DLNC has an orange polyurethane cover and is non-perforated for applications requiring electrical non-conductivity. TH7DLNC meets the SAE 100R7 Electrical Conductivity Test.

## HYDRAULIC HOSE TO EN / SAE STANDARD

### G3H



												
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.
-4	6	1/4	0.56	14.2	1250	8.8	5000	35.0	75	710	19	4G3H
-6	10	3/8	0.75	19.1	1125	7.9	4500	31.5	100	710	33	6G3H
-8	12	1/2	0.94	23.9	1000	7.0	4000	28.0	125	710	48	8G3H
-10	16	5/8	1.10	27.9	900	6.2	3600	24.8	140	710	57	10G3H
-12	19	3/4	1.25	31.8	750	5.2	3000	21.0	150	710	71	12G3H
-16	25	1	1.50	38.1	565	3.9	2260	15.8	200	510	92	16G3H
-20	31	1.1/4	1.75	44.5	375	2.6	1500	10.5	250	380	110	20G3H

#### RECOMMENDED FOR

High-temperature, low pressure hydraulic oil lines, anti-freeze solutions and water.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

Two fibre braids.

#### COVER

CR (Chloroprene) based.

#### TEMPERATURE RANGE

-40°C to +135°C constant and +150°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Exceeds ISO 4079 R3. EN 854 R3. SAE 100R3.

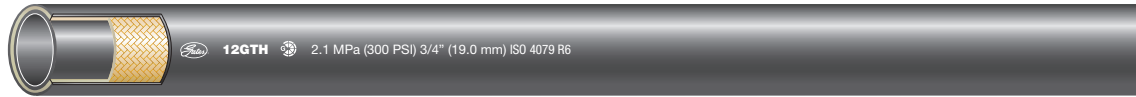
#### COUPLINGS

-4 to -10: MegaCrimp®; for replacement of crimped assemblies with larger inner diameter we recommend to use ACR MegaTech®, see page 80.

## HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

### GTH



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.
-4	6	1/4	0.50	12.7	400	2.8	1600	11.2	65	710	13	4GTH
-5	8	5/16	0.56	14.3	400	2.8	1600	11.2	75	710	15	5GTH
-6	10	3/8	0.63	15.9	400	2.8	1600	11.2	75	710	17	6GTH
-8	12	1/2	0.78	19.8	400	2.8	1600	11.2	100	450	23	8GTH
-10	16	5/8	0.91	23.0	350	2.4	1400	9.6	125	380	28	10GTH
-12	19	3/4	1.06	26.9	300	2.1	1200	8.4	150	380	38	12GTH
-16	25	1	1.32	33.5	250	1.7	1000	6.9	165	250	47	16GTH

#### RECOMMENDED FOR

High-temperature, low pressure hydraulic oil lines, heavy-duty transmission oil cooler lines and glycol anti-freeze solutions.

#### TUBE

NBR (Nitrile) based.

#### REINFORCEMENT

One fibre braid.

#### COVER

CR (Chloroprene) based.

#### TEMPERATURE RANGE

-40°C to +135°C constant and +150°C intermittent. For water emulsions, etc. see Temperature Limits Table.

#### STANDARDS

Meets ISO 4079 R6 / EN 854 R6 / SAE 100R6 (-4 to -12).

#### COUPLINGS

MegaCrimp®.