

Avoid injury to yourself and others by following these important hose assembly steps

WARNING

Never underestimate the power of a blown hydraulic assembly.

Serious injury, death and destruction of property can result from rupture or blow-apart of a hydraulic hose assembly that is:

- Damaged or worn out
- Assembled or installed incorrectly
- Wrong for application

1. Receive hands-on training with Gates recommended equipment.
2. Follow current Gates **operating manuals and crimp data**.
3. Use only new (unused) Gates recommended hose and couplings with **Gates crimpers**.
4. Wear safety glasses.

Select and Install Assemblies With Care

1. **Select proper hose assemblies for the application.** Many factors and conditions affecting the inside and outside diameter of the hose must be taken into account.
2. Hose assembly routing **must not** create an injury hazard or damage hose. Refer to the standards, regulations and directories that apply in the countries where the equipment is sold and used.
3. Select hydraulic components so that the application's temperature, pressure and bend radius **do not exceed** recommended component limits.


4. Hose **must not** be stretched, kinked, crushed or twisted during installation or use. Hose **must not** be bent to less than the minimum bend radius.
5. Use **only** thermoplastic hose for **non-conductive** applications. For instance: cherry pickers. All other Gates hoses are electrically conductive.
6. **DO NOT use standard hydraulic hose to convey gases or steam over 500 PSI. Use only products rated for this service.**
7. **DO NOT use hydraulic hose in place of permanent piping.**

Follow Good Maintenance Practices

1. **Establish a program** of inspection, testing and replacement of hose assemblies from factors including:
 - Severity of application.
 - Frequency of equipment use.
 - Past performance of hose assemblies

2. **Only** properly trained persons should inspect, test or service hose assemblies. Update training periodically.
3. **Document** maintenance, inspections and testing.

4. AVOID FLUID INJECTION INJURIES

- Fluid under pressure can cause serious injury. It can be almost invisible escaping from a pinhole, and it can pierce the skin into the body. 
 - Do not touch a pressurized hydraulic hose assembly or attempt to find a hydraulic system leak with any part of your body.
 - If fluid punctures the skin, **even if no pain is felt, a serious emergency exists.** Obtain medical assistance immediately. **Failure to do so can result in loss of the injured body part or death.**
5. Stay out of hazardous areas while testing hose assemblies under pressure. **Use proper safety protection.**

OTHER SAFETY INFORMATION

Many factors affect the selection, making, installation and maintenance of hose assemblies. This catalog, Gates Corporation, the hydraulic equipment maker and the Society of Automotive Engineers Recommended Practice SAE J1273, have useful information about selecting, making, installing and servicing hydraulic

hose assemblies. For further information, please contact your local Gates representative or call Gates Corporation.

Gates recommends hose and coupling combinations in this catalog only after completing extensive testing.

Evaluation of a hose and coupling combination requires considerable impulse testing

and cannot be determined by a simple burst or pressure hold test. Gates disclaims all liability for any hose assembly made in violation of Gates recommendations, procedures and current crimp data. Crimp data is updated on average every year. For the most up-to-date crimp data, visit our website at www.gates.com/ecrimp.

The consumer's exclusive remedy with respect to any claim shall be a refund of the purchase price or replacement of the product at the option of Gates. In no event shall Gates be liable for any incidental or consequential damages whatsoever.

AIRCRAFT POLICY

Do not use Gates hose or couplings on aircraft propeller or rotor drive systems or in-flight accessory drives. Gates products are not designed or intended for aircraft use.

LIMITED WARRANTY

Gates Products are warranted to be free from defects in material and workmanship, and Gates will, at its option, replace or repair any Products proved defective in material or workmanship. This is the sole remedy for breach of warranty. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, HEREBY ARE EXPRESSLY DISCLAIMED. LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY AND INDIRECT DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, HEREBY IS EXPRESSLY EXCLUDED, REGARDLESS OF WHETHER SUCH DAMAGES WERE REASONABLY FORESEEABLE, OR WHETHER GATES HAD KNOWLEDGE THAT THEY COULD OCCUR. This Limited Warranty shall be void to the extent that any of the following, as determined by Gates, occurs: (a) improper installation of the Products, including any unauthorized installation of Products into vehicles; (b) improper usage or maintenance of the Products; (c) induction of defect by other products; (d) mishandling of the Products or other abuse; (e) improper matching with other applications; (f) collision, engine overheating or oil starvation, or product misapplication or contamination, including, but not limited to, contamination with oil or antifreeze; (g) the Products are used for racing or competition; (h) any use not recommended in writing by Gates; or (i) any failure to follow use instructions.

M2T[®] MegaFlex[®] 2-Wire Braid Hose - SAE 100R16 High Pressure

HOSE

Meets Flame Resistance Acceptance Designation "MSHA 2G", and ISO11237 2SC R16

Recommended For: High-pressure hydraulic oil lines. Exceeds SAE 100R16, SAE 100R2, ISO11237 2SC R16 and ISO 1436 2SN R2 requirements and performance requirements of EN 857 2SC and EN 853 2SN. M2T hose has smaller exterior dimensions and significantly tighter bend radius.

Tube: Black, oil resistant, synthetic rubber (Nitrile - Type C). See Hose Stock Characteristics.

Reinforcement: Two braids of high-tensile steel wire.






Cover: Black, oil, abrasion and weather resistant, synthetic rubber (Modified Nitrile - Type C2), with color coded layline. Also available with unique abrasion resistant MegaTuff[®] or XtraTuff[™] cover. See Hose Stock Characteristics.

Temperature Range: -40°F to +212°F (-40°C to +100°C). For water emulsions see Temperature Limits Table.

Coupling Recommendation (See gates.com/ecrimp or Crimp Data Manual 35019)

GlobalSpiral[™] Couplings (-6 through -20) (Section E)
GlobalSpiral[™] Plus Couplings (-24 and -32) (Section E)
MegaCrimp[®] Couplings (-4 through -20) (Section G)
Stainless Steel "B" Couplings (Section H)



Description	Product No.						Standard Pack	Weight (Lbs.)
4M2T X50FT	4657-1553	1/4	.56	6000	24000	1.5	1	10.80
4M2TX150REEL	4657-4422	1/4	.56	6000	24000	1.5	150	.23
4M2TXBALE	4657-5728	1/4	.56	6000	24000	1.5	5600	.22
4M2TXREEL	4657-1552	1/4	.56	6000	24000	1.5	550	.21
6M2T X50FT	4657-1550	3/8	.70	5000	20000	2.0	1	15.19
6M2TX100REEL	4657-4607	3/8	.70	5000	20000	2.0	100	.28
6M2TXBALE	4657-5729	3/8	.69	5000	20000	2.0	3000	.31
6M2TXLRG REEL	4657-1492	3/8	.70	5000	20000	2.0	1500	.30
6M2TXREEL	4657-1555	3/8	.70	5000	20000	2.0	385	.30
8M2T X50FT	4657-1561	1/2	.82	4300	17200	2.8	1	17.50
8M2TX100REEL	4657-4608	1/2	.82	4300	17200	2.8	100	.33
8M2TXBALE	4657-5730	1/2	.82	4300	17200	2.8	2500	.37
8M2TXLRG REEL	4657-1493	1/2	.82	4300	17200	2.8	1000	.37
8M2TXREEL	4657-1559	1/2	.82	4300	17200	2.8	330	.37
10M2T X50FT	4657-1564	5/8	.95	3800	15200	3.0	1	22.06
10M2TXBALE	4657-5577	5/8	.95	3800	15200	3.0	1750	.45
10M2TXREEL	4657-1563	5/8	.95	3800	15200	3.0	220	.45
12M2T X50FT	4657-1568	3/4	1.11	3500	14000	3.8	1	26.95
12M2TX50REEL	4657-4609	3/4	1.11	3500	14000	3.8	50	.51
12M2TXBALE	4657-5732	3/4	1.11	3500	14000	3.8	1500	.54
12M2TXREEL	4657-1567	3/4	1.11	3500	14000	3.8	220	.54
16M2T X50FT	4657-1572	1	1.39	2500	10000	4.5	1	36.56
16M2TXREEL	4657-1571	1	1.39	2500	10000	4.5	165	.73
20M2T X25FT	4657-4540	1 1/4	1.67	2300	9200	8.3	1	22.25
20M2TXCTN	4657-4534	1 1/4	1.67	2300	9200	8.3	120	.89
24M2T X25FT	4657-4610	1 1/2	2.00	2000	8000	10.0	1	31.75
24M2T X50FT	4657-4541	1 1/2	2.00	2000	8000	10.0	1	85.00
24M2TXCTN	4657-4491	1 1/2	2.00	2000	8000	10.0	120	1.70
32M2T X25FT	4657-4611	2	2.53	1500	6000	12.5	1	46.25
32M2T X50FT	4657-4542	2	2.53	1500	6000	12.5	1	147.50
32M2TXCTN	4657-4492	2	2.53	1500	6000	12.5	120	2.95