



# MEGASYS™ MXG™ 5K HOSE WITH XTRATUFF™ PLUS

EXTERNAL GLOBAL AUDIENCE: EXISTING CUSTOMERS | 11.2021

**FLUID POWER  
HYDRAULICS**



GATES // MEGASys™ // 8MXG™ 5K XTP XtraTuff™ Plus // 1/2" (12.5 mm) 5075 psi 35.0 MPa 350 Bar // Performs above SAE L00R12, ISO 38-1 Exceeds ISO 18752 Class 200 Type C



# INTRODUCING MXG™ 5K WITH XTP COVER

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## GATES® MEGASYS™ MXG™ 5K WITH OPTIONAL XTRATUFF™ PLUS COVER

**NEXT-LEVEL PERFORMANCE THAT IS ENGINEERED TO MAXIMIZE UPTIME AND BOOST YOUR PRODUCTIVITY.**

Built with our patented Xpiral™ woven spiral technology, MegaSys™ MXG™ 5K hydraulic hose is lightweight, highly flexible and qualified to ONE MILLION impulse cycles. MXG™ 5K exceeds the performance of wire spiral constructions, but with the lower weight and flexibility driven by Gates materials science technology. The XtraTuff™ Plus cover on MXG™ 5K hose offers 25X the abrasion resistance of standard covers, as well as impressive ozone resistance.

At Gates, we don't limit our challenges, we challenge our limits. Using advancements in Gates R&D, we leveled up our hydraulic hose and engineered it to meet ever-tougher industrial and mobile equipment requirements — making a next-level performance hose that is a lot lighter, smaller, tougher and more agile.



### FEATURES + BENEFITS

- **Proprietary application of materials science and processing technology**
- **MXG™ 5K is 350 bar working pressure or 5075 psi**
- **Exceeds performance criteria of ISO 18752 350DC, SAE 100R13, EN856 R13 and ISO 3862 R13; sizes -10, -12 and -16 also rated for EN856 4SP**
- **1,000,000 cycle impulse life exceeds industry standards for longevity in the factory or field**
- **Compact construction with excellent flexibility and lower force-to-bend for faster and more ergonomic installation (force-to-bend is 25% better and OD is 5% smaller)**
- **20% lighter weight for easier handling and installation**
- **Gates® XtraTuff™ Plus cover comes standard on MXG, providing abrasion and ozone resistance**
- **Utilizes Gates® GS GlobalSpiral™ couplings; compatible with Gates Crimpers**

**EXPERIENCE THE UNPARALLELED PERFORMANCE OF MEGASYS™ MXG™ 5K**



## MXG 5K IS A DROP-IN REPLACEMENT FOR LEGACY EFG5K HOSE

Size	WP (psi)		Impulse Cycles		MBR (mm)		Max OD (mm)			Weight (lb)			Force to Bend (lb)		
Nom. 1/16"	MXG 5K	Gates EFG5K	MXG 5K	Gates EFG5K	MXG 5K	Gates EFG5K	MXG 5K	Gates EFG5K	MXG 5K OD	MXG 5K	Gates EFG5K	MXG 5K WEIGHT SAVINGS	MXG 5K	Gates EFG5K	MXG 5K FLEX ADVANTAGE
6	5075 (350 bar)	5075 (350 bar)	1M @ 133% WP	1M @ 133% WP	65	65	18.0	20.4	-12%	0.29	0.48	-39%	4.2	9.87	- 58%
8					90	90	21.6	24.0	-10%	0.41	0.59	-31%	7.4	9.97	- 26%
10					100	100	26.1	27.6	-5%	0.59	0.78	-24%	8.8	17.14	- 49%
12					120	120	29.6	31.4	-6%	0.72	0.97	-26%	14.7	20.07	- 27%
16					150	150	38.7	38.7	-	1.23	1.28	-4%	29.4	34.36	- 14%

- **MXG 5K is 5% more compact than EFG5K**
- **MXG 5K is 20% lighter weight than EFG5K**
- **MXG 5K is 25% more flexible than EFG5K**
- **MXG 5K uses GS couplings**
  - GS1F-2 ferrules in sizes 6-12
  - GS1F-4 ferrules are still used on size 16
  - Same ferrules as MXG™ 4K for all sizes



GS1F-2 Ferrule

GS1F-4 Ferrule





## CHALLENGES SOLVED WITH XPIRAL™

Xpiral™ technology allows for higher density than traditional spiral reinforcement and delivers...

- **Same Performance**
- **Smaller Package**
- **Lower Weight**
- **More Flexibility**





## GATES MEGASYS™ INNOVATIVE PORTFOLIO (SELECTED PRODUCTS)

MXG 5K	MXG 4K	EFG5K	MXT-XTP	M5K	M2T
Xpiral™ Woven Spiral Wire	Xpiral™ Woven Spiral Wire	Spiral Wire	Wire Braid	Wire Braid	Wire Braid
5075 psi / 350 bar	4060 psi / 280 bar	5000 psi/350 bar	Variable Pressure by Size (i.e. size 6 is 4800 psi / 330 bar)	5000 psi/350 bar	Variable Pressure by Size (i.e. size 20 is 2300 psi / bar)
-40 °C to +121 °C	-40 °C to +121 °C	-40 °C to +121 °C	-40 °C to +100 °C	-40 °C to +100 °C	-40 °C to +100 °C
1M Impulse Cycles	1M Impulse Cycles	1M Impulse Cycles	600k Impulse Cycles	600k Impulse Cycles	600k Impulse Cycles
Abrasion-resistant, High Temperature and Ozone Resistant Cover	Abrasion-resistant, High Temperature and Ozone Resistant Cover	NBR (Nitrile) based	Standard Cover or Options XtraTuff™ Plus Abrasion- and Ozone-Resistant Cover	NBR/PVC based	MegaTuff™ and XtraTuff™ cover (300x and 25x versus standard cover)
Branded with SAE, ISO and EN Specs  Exceeds all criteria of ISO 18752 350DC; exceeds performance criteria of SAE 100R13, EN856 R13, ISO 3862 R13 ((sizes -10, -12 and -16 also exceeds EN856 4SP performance requirements)	Branded with SAE, ISO and EN Specs  Exceeds all criteria of ISO 18752 280DC and SAE 100R19; exceeds performance criteria of SAE 100R12, EN 856 R12, ISO 3862 R12 (Size -16 also exceeds EN 856 4SP performance requirements)	Branded with SAE, ISO and EN Specs  Exceeds ISO 3862 R13. EN 856 R13. SAE 100R13.	Branded with ISO and EN Specs  Meets EN 853 2SN and EN 857 2SC performance. Meets ISO 11237 R16 and ISO 11237 R17* dimension and performance. Meets ISO 1436 R2 and ISO 11237 R19* performance	Branded with EN Specs  Meets or exceeds EN 857 2SC performance requirements	Branded with SAE, ISO and EN Specs  Exceeds ISO 11237 2SC R16S. SAE 100R16 (-20). Exceeds ISO 1436 2SN R2ATS. EN 853 2SN. SAE 100R2AT.
GS Couplings	GS Couplings	-6 to -20: GS -6 to -20; GS Maximum -24, -32	MegaCrimp® Couplings in All Sizes Standard Cover also has GS and SS Qualifications	MegaCrimp®	MegaCrimp® (-04 to -20) GS Couplings Plus (-24 & -32)
Sizes (dash): 6-16	Sizes: 6-16	Sizes:6-32	Sizes: 4-16	Sizes:4-8	Sizes:4-32



## XTRATUFF™ PLUS FOR MXG™ 5K

MXG™ 5K COMES STANDARD  
WITH XTP COVER

**25X MORE** abrasion resistant  
than Gates standard cover.

And that's not all...

- Enhanced ozone protection – ideal for equipment operating outdoors
- Delivers exceptional durability, even at elevated temperatures (250°F/121°C operating environments)
- Smooth cover – easier to route
- No impact to flexibility
- Chloroprene free



**XTRATUFF PLUS**  
ENHANCED OZONE PROTECTION

**WE'VE GOT YOU  
COVERED.**



## LOWER FORCE-TO-BEND

- **Faster and more efficient routings**  
*(labor savings, output)*
- **More ergonomic installation and assembly** *(HSE)*
- **Reduced warranty/leaks associated with attaching to manifold** *(warranty/quality)*
- **Can reduce hose usage based on routing** *(profitability)*
- **Minimizes wear-and-tear on equipment caused by stiff hoses**  
*(uptime)*

## LIGHTER WEIGHT

- **More ergonomic assembly – think kits!**  
*(HSE)*
- **More ergonomic warehouse handling** *(HSE)*  
**and shipping**
- **Hits customer weight targets**  
*(engineering performance)*
- **Fuel efficiency**  
*(engineering performance)*
- **Improved equipment responsiveness**  
*(engineering performance)*

## ELECTRIFICATION PLATFORMS

MXG™ 5K supports customers ongoing electrification efforts with weight savings + technical benefits.







## MORE COMPACT

- **Allows for upsizing hose for more application horsepower**  
(engineering performance)
- **Faster routing through small routing openings** (labor savings, output)

## INCREASED DURABILITY

- **XTP cover is standard for improved abrasion and ozone resistance**  
(engineering performance)
- **Up to 2X impulse life versus SAE standards with 1M impulse cycle performance @ 1/2 MBR**  
(warranty/quality)

## ADVANTAGES TO DISTRIBUTORS

- **Uses GS couplings** (consolidate inventory)
- **Multi-use hose simplifies hose selection**  
(consolidate inventory)
- **Exclusive and unique product** (growth)
- **Lower shipping costs due to weight**  
(profitability)
- **Lighter hose and simplified packaging are easier on employees** (HSE)

*“There’s no way EFG5K would have been able to snake through the carrier...this was only possible with MXG™ 5K. I also love the smooth XTP cover.”*

*— Tunnel-boring equipment expert in the U.S.*

## CUSTOMER EXAMPLE:

3/4" MXG™ 5K hose was installed during a field trial. One operator was able to install the hose on their own. Previously, because the legacy hose was stiff, it required two operators to install the hose in the same application.

Look for opportunities where MXG™ 5K can reduce the staffing and labor burden for your customers.







## EXPERIENCE UNPARALLELED PERFORMANCE

**- 25% FORCE-TO-BEND. - 20% WEIGHT. - 5% O.D.**

MXG™ 5K was designed to out-perform industry standards, and that is backed by laboratory testing and field trials. It also comes with a standard XtraTuff™ Plus abrasion and ozone resistant cover. MXG™ 5K is qualified to 1M impulse cycles (5075psi working pressure, 133% test pressure, 250°F/121°C temperature and an MBR that is 50%-60% tighter than the industry standard. MXG™ 5K is 20% lighter, 25% more flexible and 5% more compact than any comparable hydraulic hose in the market. It is intentionally engineered with the latest advancements in materials science and Xpiral™ woven spiral technology to make it all possible. The durable XtraTuff™ Plus cover delivers additional toughness with 25X abrasion resistance and 800+ hour ozone resistance.

### Applicable Hose Standards:

- **MXG™ 5K is fully compliant with ISO 18752 350DC and is tested at tighter MBR**
- **MXG™ 5K exceeds performance criteria of SAE 100R13**
  - Qualified at 1/2 minimum-bend-radius (MBR) requirements and 2X impulse life of SAE 100R13
  - Same ratings as existing EFG5K hose
- **Sizes 10, 12, and 16 MXG™ 5K exceeds EN 856 4SP performance requirements**
  - 16 MXG™ 4K also exceeds EN 856 4SP performance requirements





**-25%**

**LOWER  
FORCE-TO-BEND**

COMPARED TOP-TIER EFG5K  
WIRE-SPIRAL HOSE



**-20%**

**LIGHTER  
WEIGHT**

COMPARED TO TOP-TIER EFG5K  
WIRE-SPIRAL HOSE



**-5%**

**MORE  
COMPACT**

COMPARED TO TOP-TIER EFG5K  
WIRE-SPIRAL HOSE



**25X**

**MORE  
ABRASION-RESISTANCE**

THAN STANDARD  
COVERS

