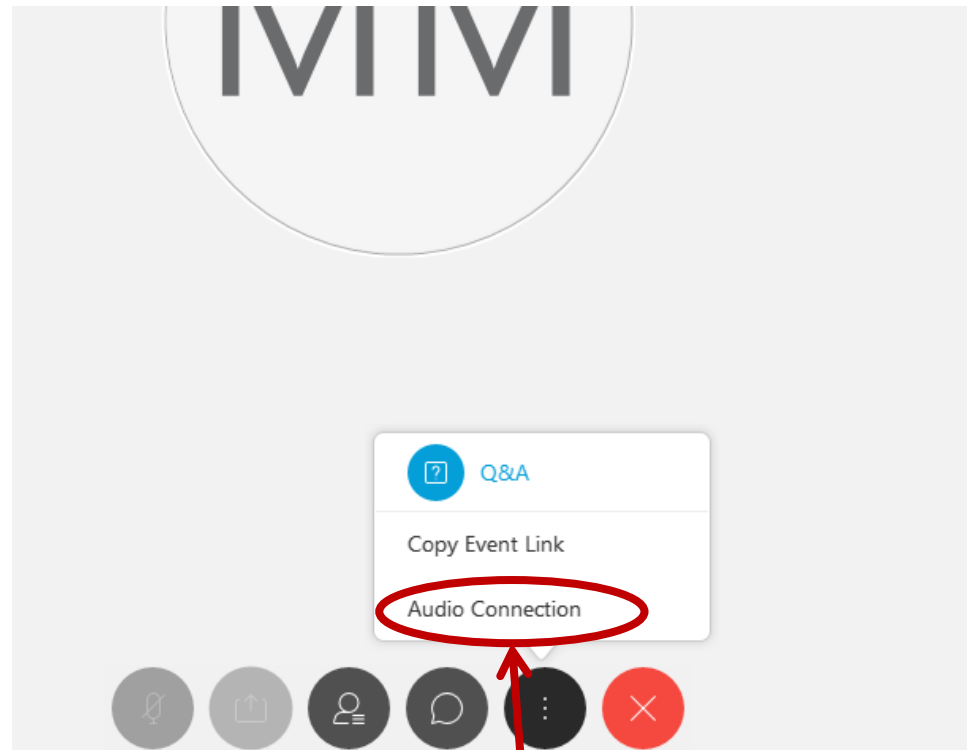


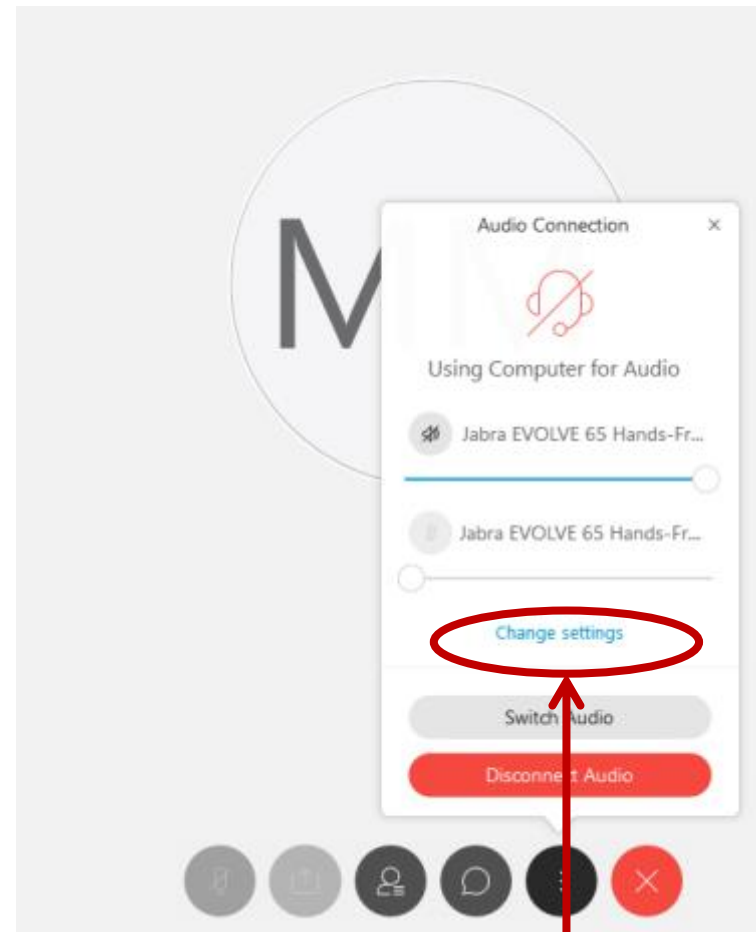


HOW TO CONFIGURE AUDIO



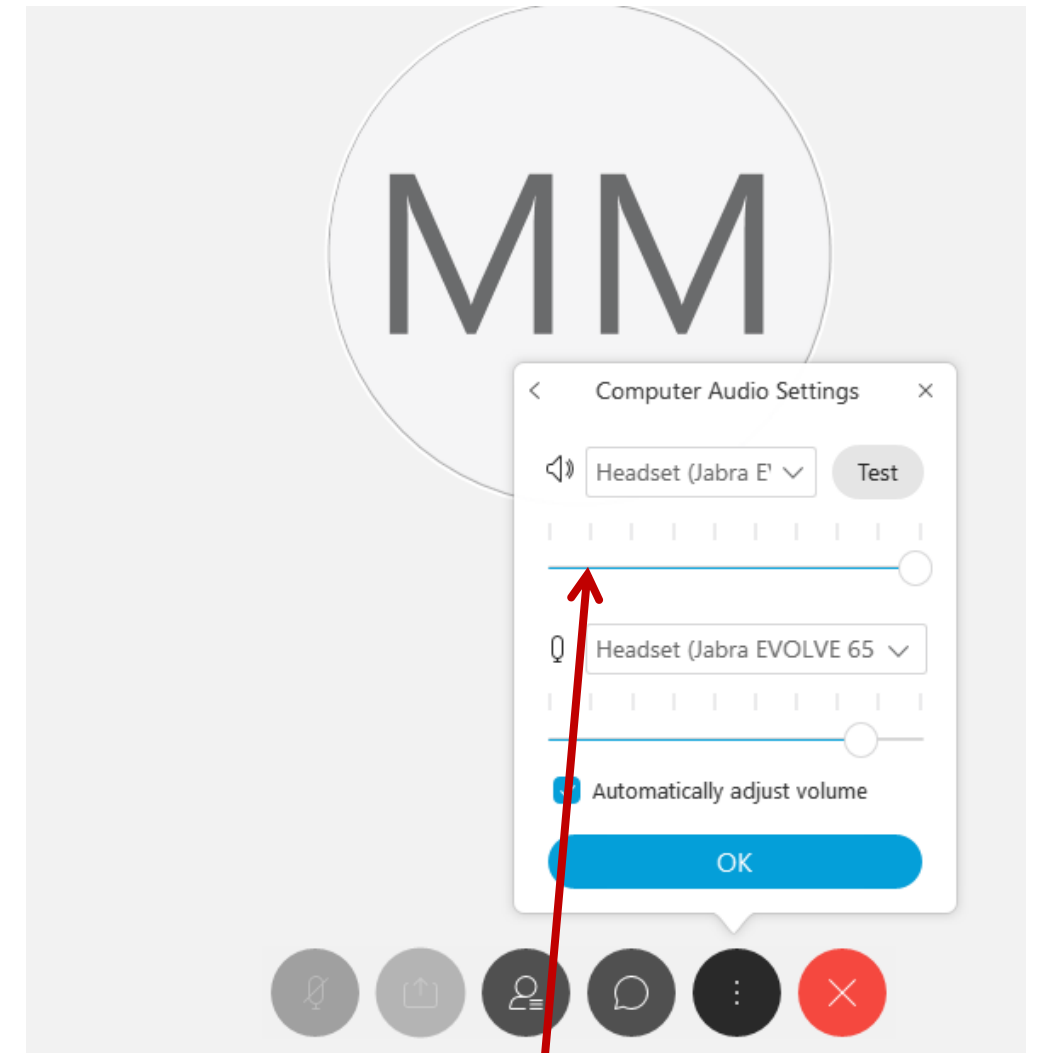
1

Click on audio connection



2

Click on Change Settings



3

Select speakers, headset or the audio device used on the computer and click on TEST

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MEGASYS™ MXG™ 4K

**FLUID POWER
HYDRAULICS**





AGENDA

- What is it?
- Applicable Standards
- Key Benefits
- Competitive Edge
- Target Applications
- MarCom Materials





=

MEGASYS™

It provides differentiation from PRO Series and is consistent with existing products (M3K, M2T, MXT). PRO Series products start with “PRO” and will follow similar naming conventions as MegaSys™.



=

MATERIALS ADVANCEMENTS + WIRE TECHNOLOGY

Providing consistency in messaging with MXT.



=

GLOBAL + ALSO REFERENCES “REPLACED PRODUCT”

MXG is an innovative replacement to EFG4K.





INNOVATION DRIVERS

- 40% Lower Force-to-Bend
- 30% Lighter Weight
- 8% More Compact
- Multi-use Hose Consolidates Inventory
- MXG™ 4K Comes Standard with XTP Cover



MXG™ 4K DETAILS

- Constant pressure 280 bar hose line
- Impulse performance matches existing EFG4K (1M cycles at 133% of working pressure at 121°C and same MBR)
- MXG 4K qualified with Global Spiral™ (GS) couplings to 1,000,000 impulse cycles
- Available in sizes 6, 8, 10, 12, and 16
- MXG 4K has a smooth cover
- MXG 4K is initially manufactured in India

MEET VARYING SPECIFICATIONS AND CUSTOMER PERFORMANCE EXPECTATIONS WITH ONE SINGLE HOSE



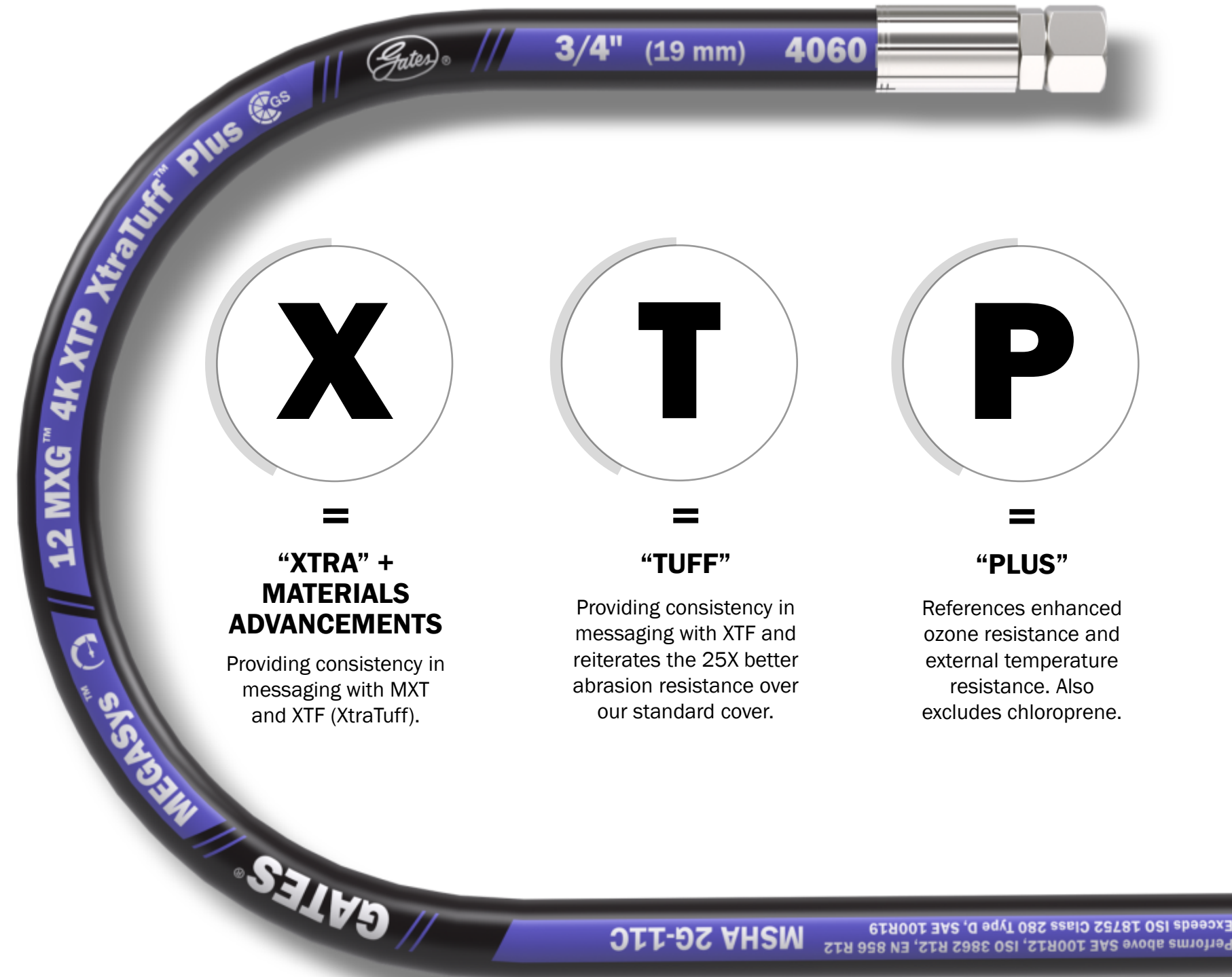
XTRATUFF™ PLUS FOR MXG™ 4K

MXG™ 4K COMES STANDARD WITH XTP COVER

25X MORE abrasion resistant than Gates standard cover.

And that's not all...

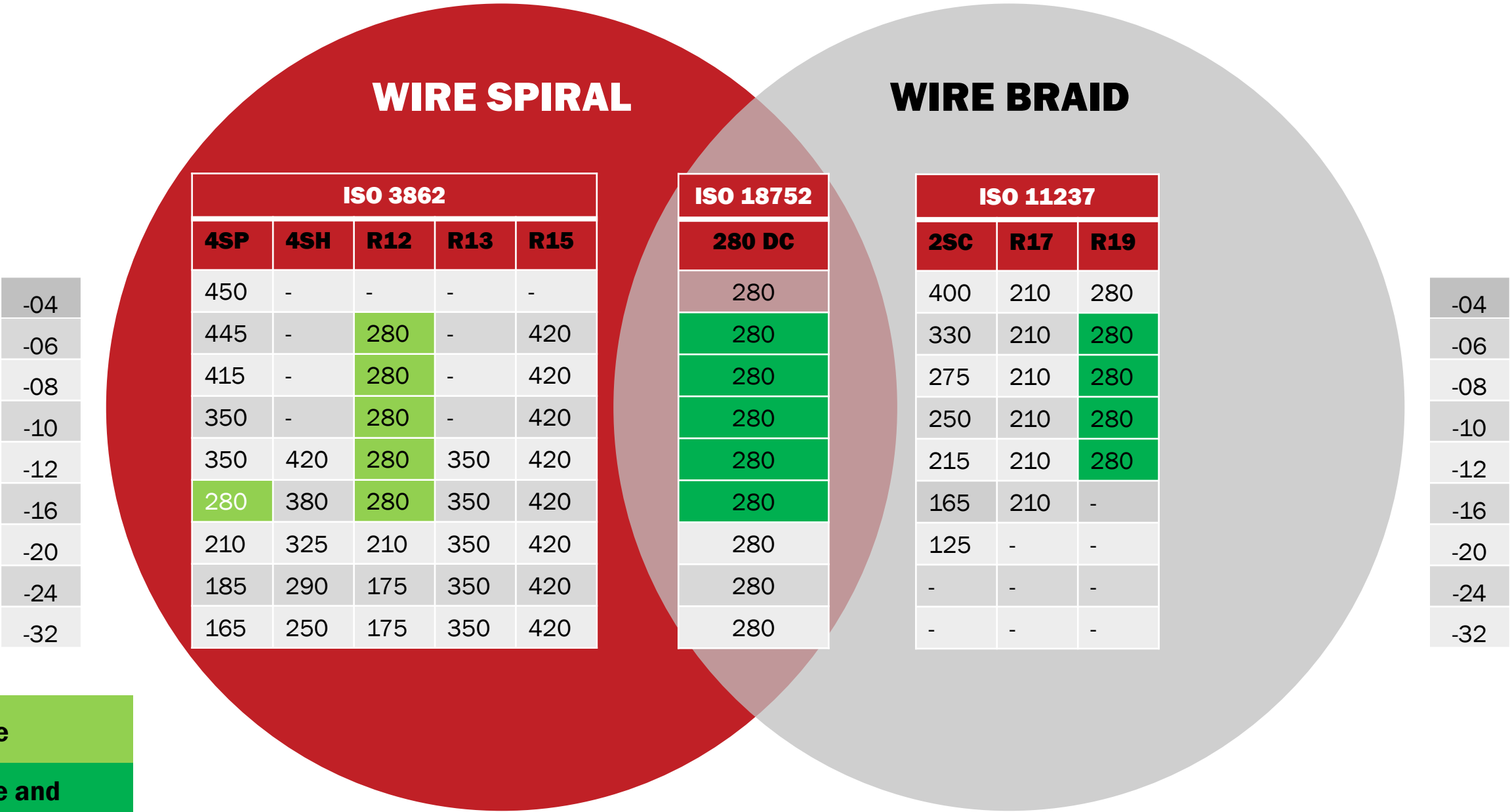
- **Enhanced ozone protection**
- **Delivers exceptional durability, even at elevated temperatures (121° C operating environments)**
- **Smooth cover**
- **No impact to flexibility**
- **Chloroprene free**





APPLICABLE STANDARDS





Exceeds performance

Exceeds performance and dimensionally 100% compliant



APPLICABLE STANDARDS WIRE SPIRAL

- **MXG™ 4K exceeds performance criteria of SAE 100R12**
 - MXG™ 4K uses an innovative construction that does not meet the construction requirements of traditional spiral standards
 - Qualified at 1/2 minimum-bend-radius (MBR) requirements
 - Same performance as EFG4K (pressure, temperature, MBR)
- **16 MXG™ 4K exceeds performance criteria of EN 856 4SP**
 - 16 MXG™ 4K exceeds EN 865 4SP performance requirements, but does not meet construction requirements
 - Temperature rating exceeds industry standard (121°C vs. 100°C)

APPLICABLE STANDARDS WIRE BRAID

- **MXG™ 4K exceeds performance of SAE 100R19 and is fully dimensionally compliant**
 - Impulse life exceeds 5X industry standard (1,000,000 impulse cycles)
 - Temperature rating exceeds industry standard (121°C vs. 100°C)

APPLICABLE STANDARDS HYBRID

- **MXG™ 4K exceeds performance of ISO 18752 280DC and is fully dimensionally compliant**
 - ISO 18752 focuses on performance and does not dictate construction



MXG USES AN INNOVATIVE CONSTRUCTION UNLIKE THE CONSTRUCTION REQUIREMENTS OF TRADITIONAL SPIRAL STANDARDS



MXG™ 4K COUPLINGS

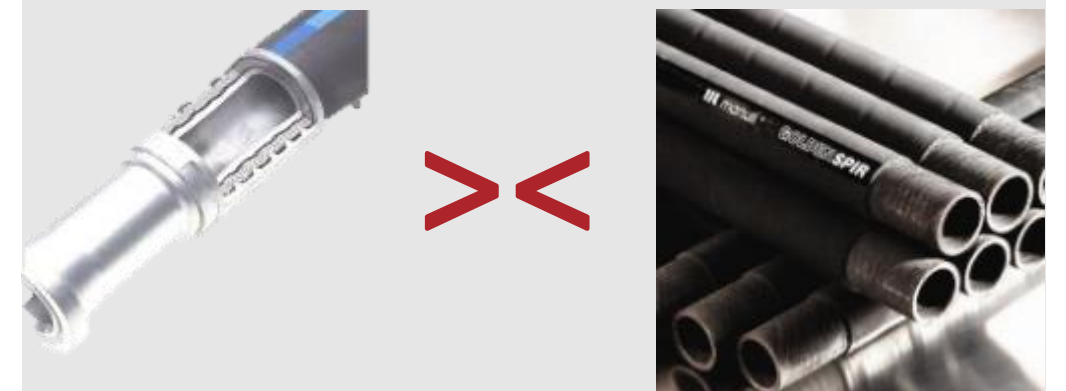
MXG™ 4K uses the GS1F-2 ferrule for sizes 6 through 12. This is an important change that you and your customers will need to consider for ordering and inventory.

Size	GlobalSpiral™ GS Ferrules
6	GS1F-2
8	GS1F-2
10	GS1F-2
12	GS1F-2
16	GS1F-4



GATES NO-SKIVE

- No-skiving machinery investment required
- Assembly Time-saving
- Less chance to fabrication errors
 - Skiving too deep
 - Skiving too shallow
 - Improper skive length
- Your best assurance for leak-free



NO-SKIVE SOLUTIONS ACROSS THE RANGE



KEY BENEFITS





MXG™ 4K COMPACT MASTER

		Minimum Bend Radius (mm)				
Size		MXG 4K	EFG4K	ISO 18752 280DC	SAE 100R12	EN 856 4SP
Nom.						
6		65	65	90	125	180
8		90	90	130	180	230
10		100	100	200	200	250
12		120	120	240	240	300
16		150	150	300	300	340

Size	Weight (kg/m)		
Nom. 1/16"	MXG 4K	EFG4K	MXG 4K Weight Savings
6	0.38	0.76	-50%
8	0.52	0.94	-45%
10	0.69	1.04	-33%
12	0.95	1.28	-26%
16	1.57	1.88	-16%

Force-To-Bend (kg/m)		
MXG 4K	EFG4K	MXG 4K FTB Improvement
5.1	14.8	-66%
6.4	17.0	-62%
10.7	25.5	-58%
16.1	22.9	-30%
22.9	35.1	-35%

Outside Diameter (mm)		
MXG 4K	EFG4K	MXG 4K FTB Improvement
17.7	20.3	-13%
20.7	23.9	-13%
25.2	27.7	-9%
28.9	30.7	-6%
38.0	38.1	0%

**ITS COMPACT SIZE ALLOWS YOU TO UPSIZE
YOUR HOSE FOR GREATER POWER OUTPUT
WITHOUT COMPROMISING PERFORMANCE**





30%
LIGHTER WEIGHT

COMPARED TO TRADITIONAL
WIRE-SPIRAL HOSE



ADVANTAGES OF WEIGHT REDUCTION

- **Reduces overall equipment weight**

Problem: Multiple OEM's have weight reduction targets

Solution: MXG4K lowers weight which drives fuel efficiency and equipment responsiveness

- **Improved ergonomics**

Problem: Traditional spiral hose assemblies are heavy, think kits

Solution: MXG4K offers more ergonomic assemblies and warehouse handling

- **More compact installations**

Problem: Traditional spiral hoses are heavy because of required routing space

Solution: MXG4K has smaller bend radius that allow for more compact routing with less hose usage



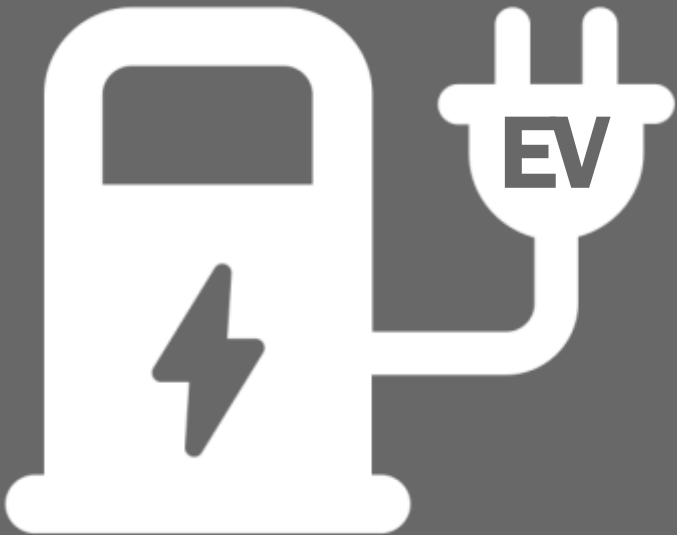
APPLICATED

EXCAVATORS				
MODEL	ASSEMBLIES	SIZES	POTENTIAL LENGTH	MACHINE WEIGHT SAVINGS
CAT 330CL	48 assies use 100R12 hose	6, 8, 12, 16	129 meters	40 kg/machine weight savings when converting to MXG 4K hose
HITACHI EX200-5	39 assies use 100R12 hose	12, 16	51 meters	9 kg/machine weight savings when converting to MXG 4K hose
JOHN DEERE 490D	39 assies use 100R12 hose	6, 12, 16	52 meters	12 kg/machine weight savings when converting to MXG 4K hose



ELECTRIFICATION PLATFORMS

MXG™ 4K supports Customers ongoing electrification efforts with weight savings + technical benefits.





-40%
LOWER
FORCE-TO-BEND
COMPARED TO TRADITIONAL
WIRE-SPIRAL HOSE



ADVANTAGES OF FLEXIBILITY

- **Faster to install**

Problem: Traditional spiral hoses are stiff and difficult to route

Solution: MXG4K speeds up assembly time or limits downtime > more productivity

- **Improved ergonomics**

Problem: Traditional spiral hoses cause fatigue and strain during fabrication and installation

Solution First Fit: MXG4K is easier to route thus reducing fatigue

Solution Distribution: MXG4K allows for reeling and easier handling

- **Reduced risk of leaks**

Problem: Traditional spiral hoses have more leaks from misaligned hose couplings

Solution: MXG4K facilitates flush mounts and right-the-first-time installation



KEY BENEFITS | FLEXIBILITY





-8%

**MORE
COMPACT**

VS. INDUSTRY STANDARD
SPIRAL HOSE



ADVANTAGES OF COMPACT DIMENSIONS

- **More compact installations**

Problem: Several applications have congested hydraulic systems

Solution: MXG4K has a slimmer profile for more compact layouting and smaller bundles

- **Improved ergonomics**

Problem: Traditional spiral hose assemblies are difficult to route and install

Solution: MXG4K supports easier routing through small routing openings

- **Faster to install**

Problem: Traditional spiral hoses require more space to install

Solution: compact MXG4K improves assembly line speed



MXG™ 4K MORE PREMIUM PERFORMANCE

Extended Hose Lifetime

Size	Minimum Impulse Cycles				
Nom.	MXG 4K	EFG4K	ISO 18752 280DC	SAE 100R1 2	EN 856 4SP
All	1M	1M	1M	500k	400k

Impulse Test Pressure				
MXG 4K	EFG4K	ISO 18752 280DC	SAE 100R1 2	EN 856 4SP
133%	133%	133%	133%	133%

Elevated Temperature

Size	Minimum Impulse Cycles				
Nom.	MXG 4K	EFG4K	ISO 18752 280DC	SAE 100R12	EN 856 4SP
All	1M	1M	1M	500k	400k

Enhanced Ozone Protection

Superior Abrasion Resistance

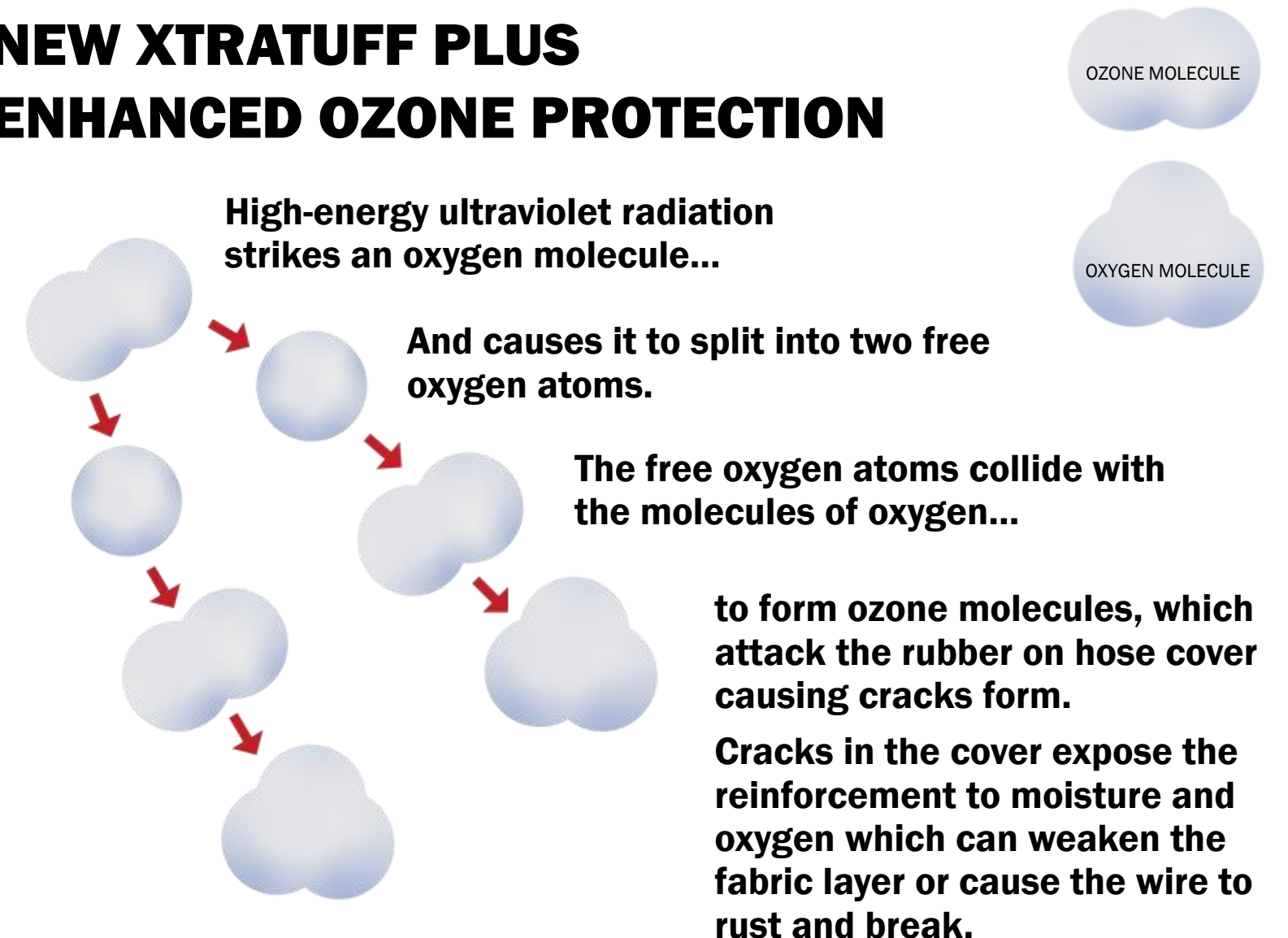




NEW XTRATUFF PLUS ENHANCED OZONE PROTECTION

- **Exposed and stretched rubber surfaces most prone to ozone concern and damage:**
 - Typically the outside radius of a static bent hose
 - Typically hoses that are frequently flexed in application
- **Ozone resistance is measured under ISO 7326 test set-up (50 pphm concentration on hose to MBR):**
 - ISO standard: 72 hrs, no cracks under 2x magnification
 - Gates standard cover: 400 hrs
 - **Gates XtraTuff Plus cover: 800 hours**
- **Gates conducts even more extreme ozone test to proof maximum endurance**
 - Accelerated ozone test to 1/4 MBR and 100 pphm

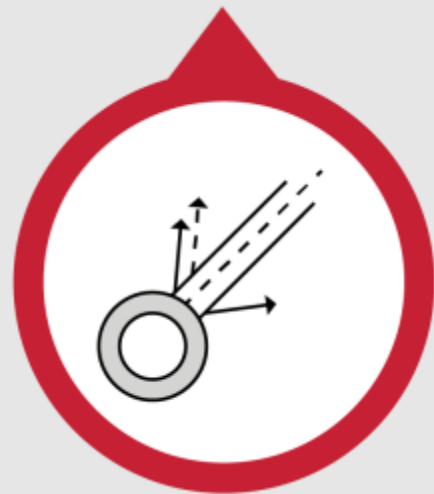
NEW XTRATUFF PLUS ENHANCED OZONE PROTECTION



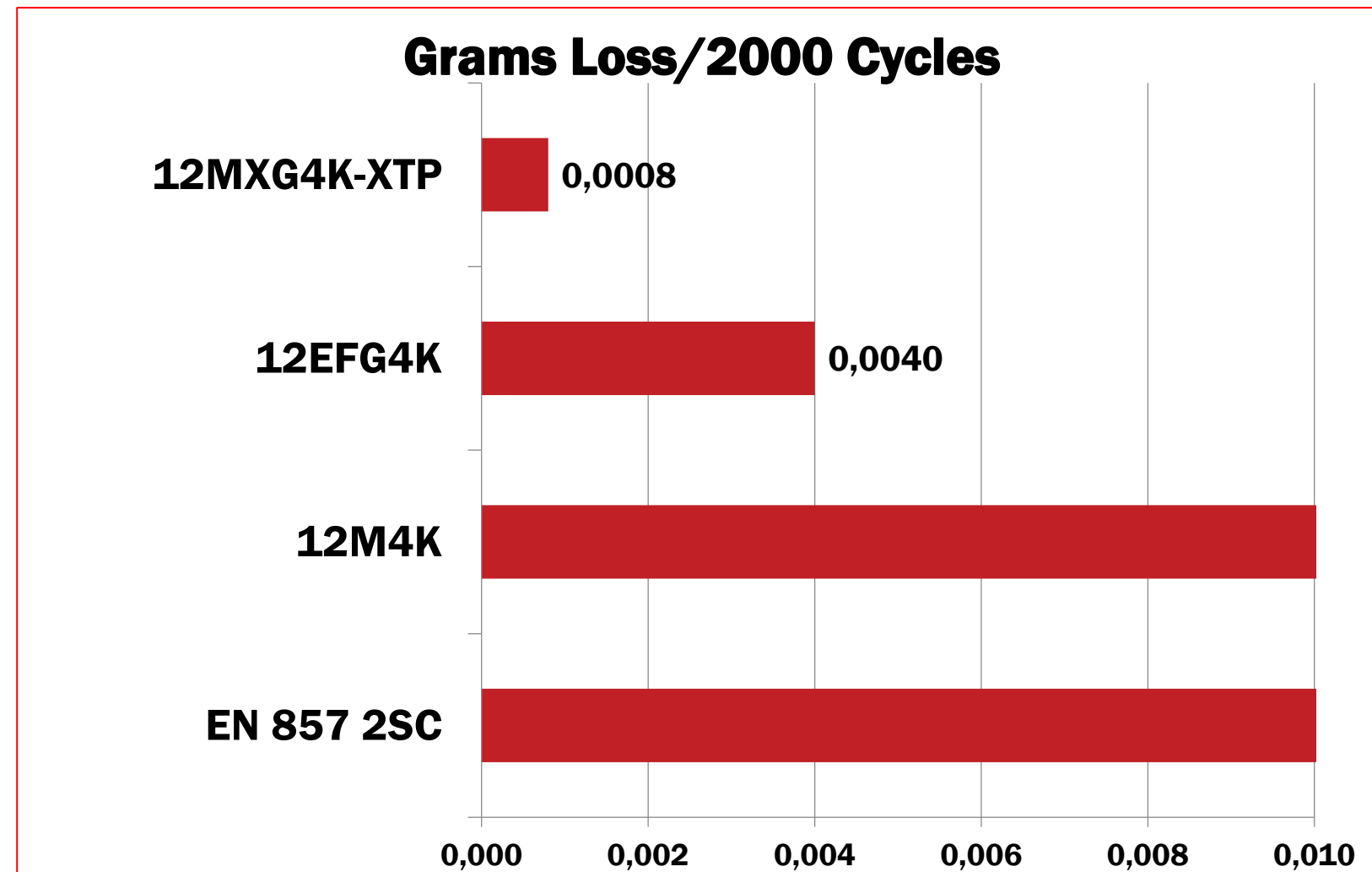


25X
MORE
ABRASION-RESISTANCE

THAN GATES STANDARD COVERS



NEW GATES XTRATUFF PLUS ABRASION RESISTANT COVERS





COMPETITIVE EDGE





COMPETITIVE EDGE | SAE 100 R12 PLAYERS

	Standard	Gates	Parker	Parker	Manuli	Semperit	Semperit	Alfa Gomma	IMM	SEL	SEL	Diesse	Hansa Flex	Vitillo
	SAE 100 R12	MXG4K	772TC	721TC	Rock Master R12	Flexline 4000	R12	Flexor12	Hypress R12	Power Stream R12+	Power Stream X-4000	DS12	KP400	Tekno Spir/12
MWP 06 > 16 (bar)	280	280	280	280	280	280	280	280	280	280	280	280	280	280
MBR -06 (mm)	130	65	125	63	--	65	125	127	95	100	65	125	65	130
MBR -08 (mm)	180	90	180	90	--	90	180	178	110	125	90	180	90	180
MBR -10 (mm)	200	100	200	100	--	100	200	203	130	140	100	200	100	200
MBR -12 (mm)	240	120	240	120	150	120	240	241	145	150	120	240	120	240
MBR -16 (mm)	300	150	300	150	225	155	300	305	210	225	150	300	155	300
IMPULSE 06 > 16	500k	1000k	500k	500k	500k	500k	500k	500k	500k	500k	500k	500k	500k	500k



MXG™ 4K VERSUS HIGHLY POPULAR -16 4SP IN EUROPE

	Standard	Gates	Parker	Parker	Manuli	Semperit	Alfa Gomma	IMM	SEL	SEL	Diesse	Hansa Flex	Vitillo
	EN 856 4SP	MXG4K	701TC	H31TC	Rock Master 4SP	4SP	Flexor 4SP	Hypress 4SP	Power Stream 4SP	Power Stream 4SP+	DS4SP	HD400	Tekno Spir/4SP
MWP -16 (bar)	280	280	280	310	320	320	320	280	280	320	325	280	320
MBR -16 (mm)	340	150	340	355	340	340	340	340	340	340	340	340	340
IMPULSE	400k	1000k	400k	400k	400k	400k	400k	400k	400k	1000k	400k	400k	400k
MAX TEMP	100 °C	121 °C	100 °C	100 °C	121 °C	100 °C **	100 °C	100 °C	100 °C **	100 °C **	100 °C **	100 °C	100 °C **
MSHA	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	OPTION	OPTION	Y
SKIVE	--	NS	NS	IL	ES	--	ES	NS	--	--	--	ES	ES

Intermittent allowance to 121 °C **



TARGET APPLICATIONS





TYPES OF EQUIPMENT

- **Hydrostatic Drives**
- **Excavators & Attachments**
- **Vacuum Trucks**
- **Boomer & Top Hammer Drills**
- **Hydraulic Power Packs**
- **Stationary Presses**
- **Injection Molding Machines**
- **Waste Compactor Trucks**
- **Vegetation Management**



BOOMER

- **SANDVIK - INDIA**
- **APPLICATION DETAILS:**
12MXG4K on dynamic mast application in boomer arms
- **CURRENT SOLUTION:** Manuli
- **WHY MXG:**
 - Flexibility
 - Abrasion Resistance



NEW

ROADSWEEPER

- **CEKSAN - TURKEY**
- **EQUIPMENT:** 12MXG4K & 16MXG4K
- **CURRENT SOLUTION:** Eaton
- **WHY MXG:**
 - Gates Support & Quality Image
 - Customer Relation



NEW

HAMMER DRILL

- **EPIROC - INDONESIA**
- **APPLICATION DETAILS:**
OEM-hose cover showing wear damage after 30 days
- **CURRENT SOLUTION:** Hydroscand
- **WHY MXG:**
 - Easier Fit
 - Abrasion Resistance

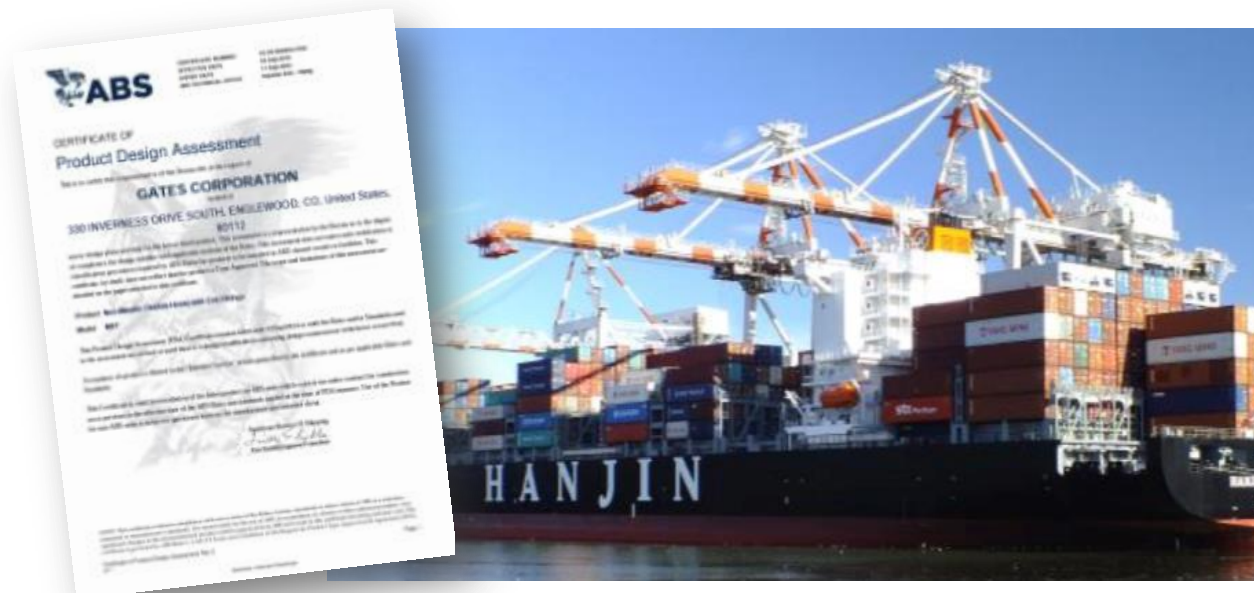


NEW



MARINE TYPE APPROVALS

- ISO 15540 Flame Retardancy Compliance
- ABS: scheduled 08/20
- DNV-GL: scheduled 08/20



LEAK-FREE COOLDOWN CAPABILITIES

- MXT + MegaCrimp couplings meet SAE J1754 Class B
- MXG + GlobalSpiral couplings meet SAE J1754 Class A

Class	Test Pressure	Impulse Cycles	Cool Down Test	1 st Cool Down	2 nd Cool Down	Leak Requirement
Class A	150% WP	300k	J1405 Option III	150k cycles	300k cycles	SAE J1176 Class O
Class B	133% WP	200k	J1405 Option III	100k cycles	200k cycles	SAE J1176 Class O
Class C	SAE J517	SAE J517	J1405 Option III	None	None	SAE J517





MINING TYPE APPROVALS

- **XtraTuff Plus cover compound is MSHA-approved**
- **MXG4K meets FRAS requirements**
 - FR: Flame Retardancy to ISO 6805 Clause 15:
The flame or glow shall not persist beyond 30 seconds after removal of the flame
 - AS: Anti-static performance to ISO 6805 Clause 14:
The electrical resistance must not exceed 2 Mohm/meter

CUSTOMER SPECIFIC

- **JCB 1000/0300 Test**
- **Caterpillar 1E0736 Test**
- ...





MARCOM MATERIALS

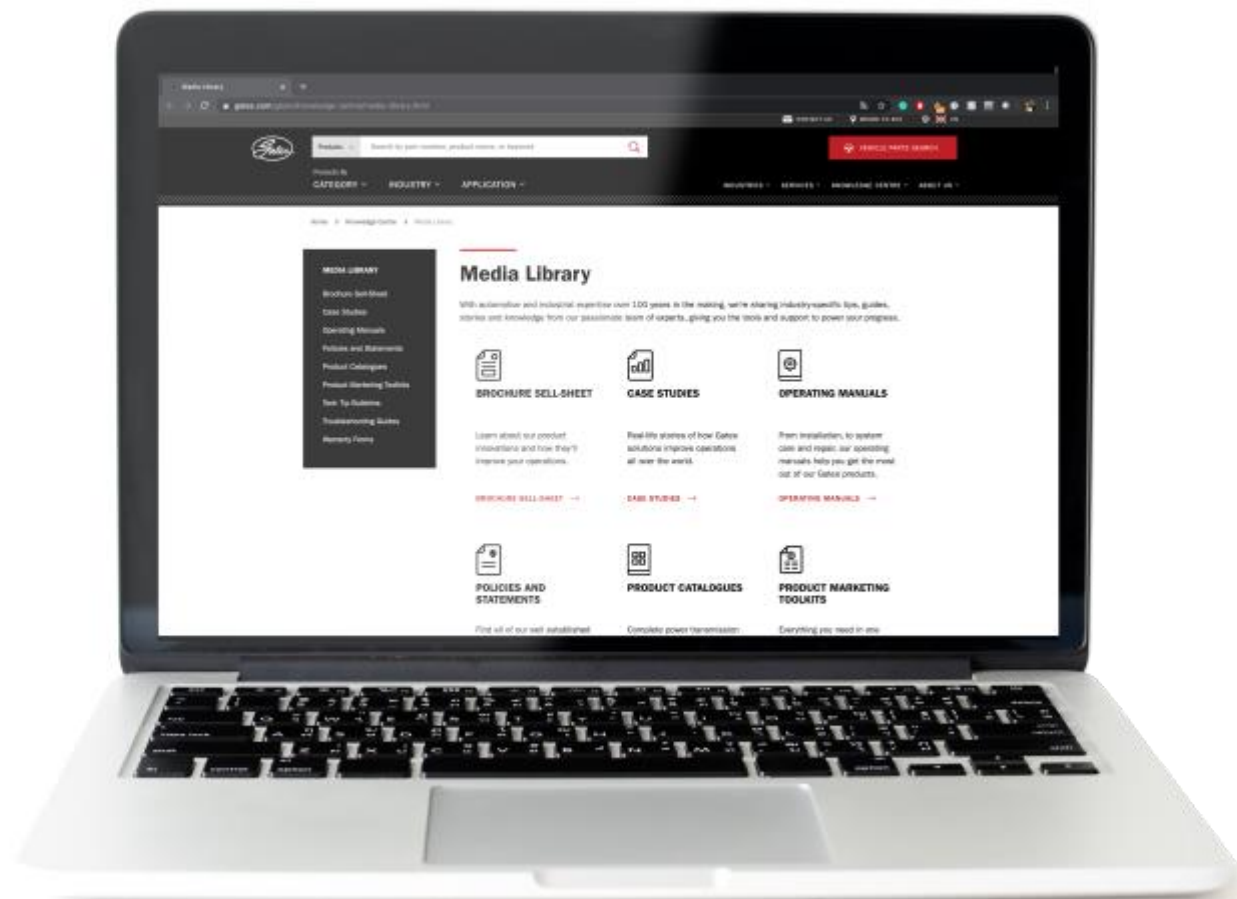




EMEA GATES.COM KNOWLEDGE CENTRE

YOUR **PRODUCT MARKETING TOOLKIT** CONTAINING ALL MXG 4K MARCOM COLLATERAL IN ONE ZIP-FOLDER!

- Contact your sales representative for more info
- Or download from the Gates Knowledge Centre:
- **GATES.COM**
 - ↓ Knowledge Centre (upper right corner)
 - ↓ Media Library
 - ↓ Product Marketing Toolkits





CROSS THE PHYSICAL DIVIDE

DIRECT, PHYSICAL MAILING OF GATES-BRANDED BOX TO YOUR WORK ADDRESS, CONTAINING:

- **Product samples**
 - 8MXG4K-XTPXRL75
 - 8MXTxBALE
 - 8EFG4K
 - 8PRO2TxBLE EURO
 - 8M2TxBLE
- **Informative documentation**
- **Introduction letter**



INTRODUCING
MEGASYS™ MXG™ 4K

GATES



MEGASys™



16 M

HIGH-PRESSURE PERFORMANCE REDEFINED





**READY TO
RETHINK
YOUR SPIRAL
HYDRAULIC
HOSE?**

LET'S DO IT!

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