



MEET MXT

THE NEXT GENERATION OF PREMIUM HYDRAULICS





WHAT TO EXPECT?

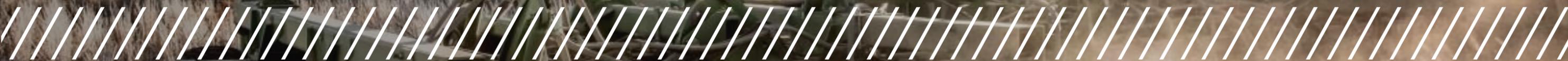
- Introducing MXT
- A customer-oriented innovation
- Unique advantages
- Innovation fueled by materials science
- Market fit
- Support tools





INTRODUCTION

THE NEXT GENERATION OF PREMIUM HYDRAULICS





improve assembly speed



improve ergonomics



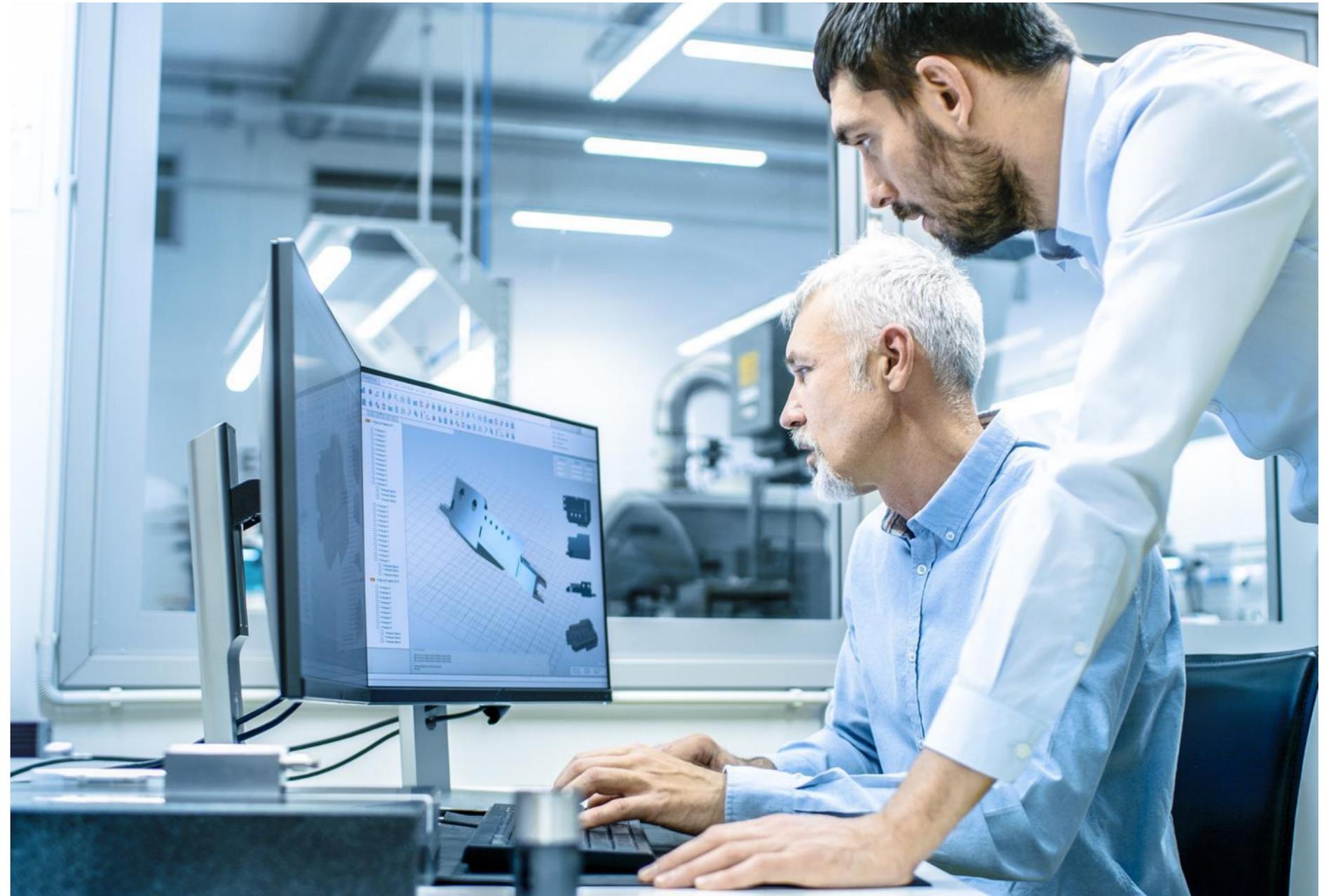
time saving solutions



fuel saving solutions



reduce logistical costs



- ✓ **a customer-oriented innovation**
- ✓ **with a lighter weight**
- ✓ **and a higher flexibility**
- ✓ **within our premium range**
- ✓ **and great performance**





MXT

A CUSTOMER-ORIENTED INNOVATION





**WIRE BRAID
MARKET**



**90% MARKET
COVERAGE**





**WIRE BRAID
MARKET**



**90% MARKET
COVERAGE**



**PERFORMANCE ACCORDING TO
INTERNATIONAL STANDARDS**

EN 857 2SC / 1SC

EN 853 2SN / 1SN

SAE 100R1 / R2 / R16

SAE 100R17 (up to -12)

SAE 100R19 (up to -08)



WIRE BRAID MARKET



90% MARKET COVERAGE



PERFORMANCE ACCORDING TO INTERNATIONAL STANDARDS

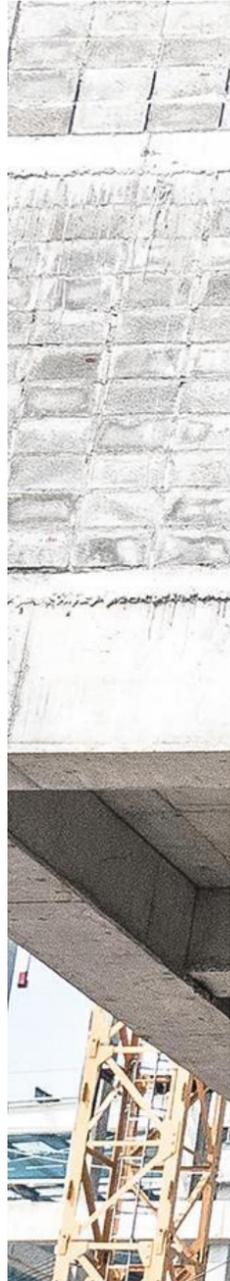
COMPARISON TO EN 857 2SC

Size			Working Pressure (MPa)			MBR (mm)			Impulse (k-cycles)		
-	DN	"	MXT	EN 857 2SC	CM2T	MXT	EN 857 2SC	CM2T	MXT	EN 857 2SC	CM2T
-04	6	1/4	40.0	40.0	40.0	50	75	50	600	200	600
-05	8	5/16	35.0	35.0	35.0	55	85	55	600	200	600
-06	10	3/8	33.0	33.0	33.0	65	90	65	600	200	600
-08	12	1/2	27.5	27.5	27.5	70	130	90	600	200	600
-10	16	5/8	25.0	25.0	25.0	75	170	100	600	200	600
-12	19	3/4	21.5	21.5	21.5	120	200	120	600	200	600
-16	25	1	16.5	16.5	16.5	150	250	150	600	200	600



MXT
UNIQUE ADVANTAGES





**MXT
ADVANTAGE**



**WEIGHT
REDUCTION**



MXT ADVANTAGE



WEIGHT REDUCTION



IMPACT

This next generation hose **weighs less** and supports **equipment weight reduction trends**



IMPACT

which also positively affects the **fuel efficiency**



IMPACT

and results into **improved ergonomics**
(light in-plant / DC material handling & logistics)



**MXT
ADVANTAGE**



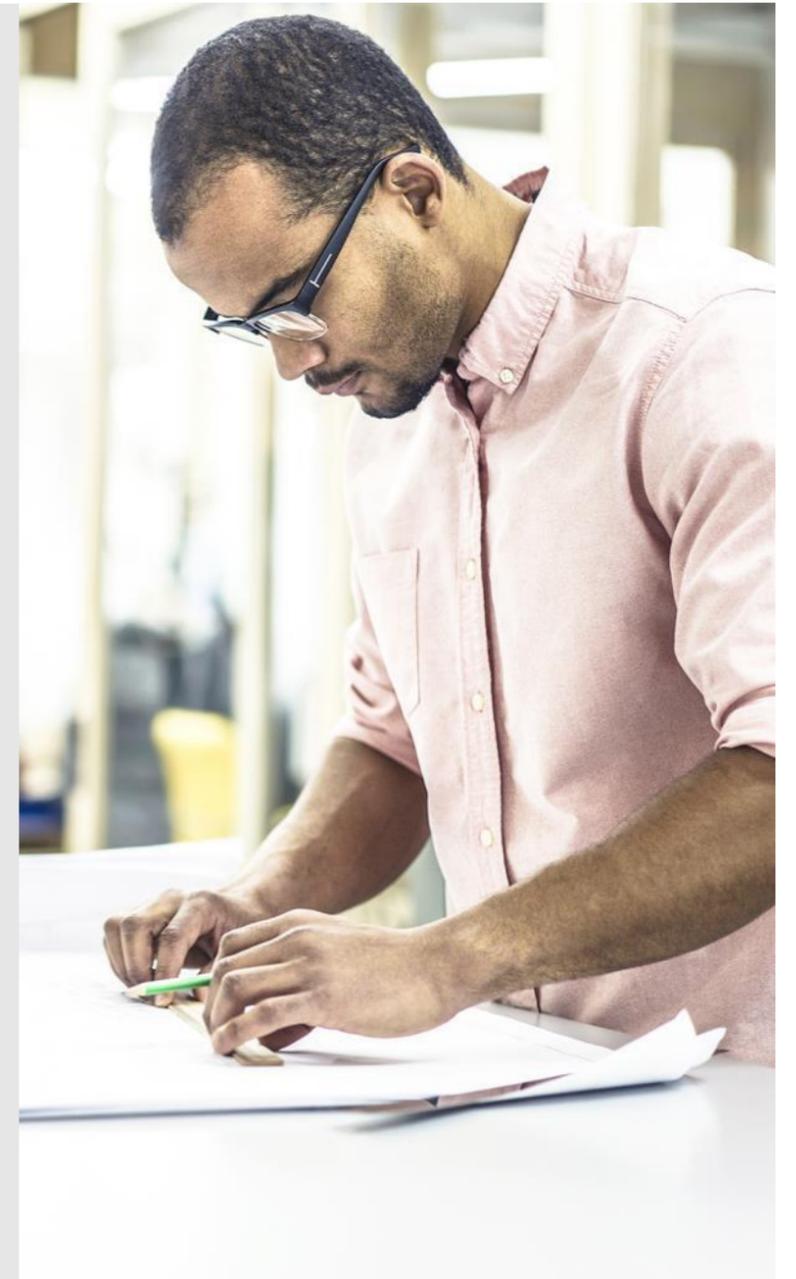
**WEIGHT
REDUCTION**

**TEST
RESULT**

**PRODUCT DEVELOPMENT GOAL
WEIGHT REDUCTION
UP TO 20%
IN COMPARISON TO CM2T (2SC)**

**TEST
RESULT**

**PRODUCT DEVELOPMENT GOAL
WEIGHT REDUCTION
UP TO 27%
COMPARISON TO G2 (2SN)**





**MXT
ADVANTAGE**



**WEIGHT
REDUCTION**

WEIGHT ADVANTAGE - COMPARISON

-	Size		WEIGHT (KG/100M)			Δ	
	DN	"	MXT	CM2T	G2	MXT/ CM2T	MXT/G2
-04	6	1/4	31	29	33	107%	94%
-05	8	5/16	36	34	35	106%	103%
-06	10	3/8	39	43	51	91%	76%
-08	12	1/2	46	51	63	90%	73%
-10	16	5/8	57	70	73	81%	78%
-12	19	3/4	70	87	88	80%	80%
-16	25	1	100	116	132	86%	76%



**MXT
ADVANTAGE**



**WEIGHT
REDUCTION**

**TEST
RESULT**

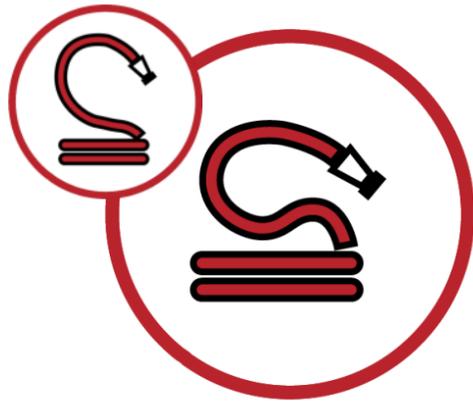
**TESTCASE BOOM LIFT WEIGHT
SAVING OF 17,40 KG**
FUEL EFFICIENCY AND OVERALL
WEIGHT REDUCTION

Boom lift	MXT Eligible in meters
6G2	90,80
4G1	42,70
8G1	38,70
12G2	12,10
8G2	10,70
16G1	1,30
24G1	1,10
20G1	0,30
Total Meterage	197,70
MXT Meterage	113,60
WEIGHT SAVING	-17,40





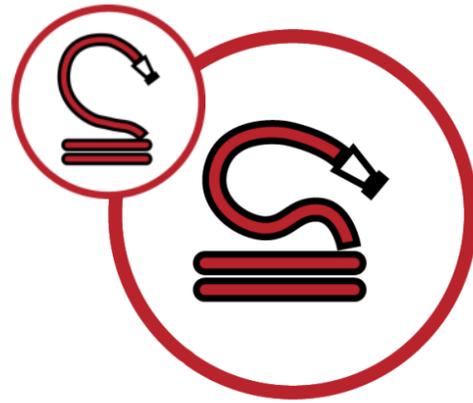
**MXT
ADVANTAGE**



**INCREASED
FLEXIBILITY**



MXT ADVANTAGE



INCREASED FLEXIBILITY



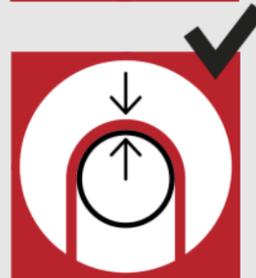
IMPACT

Improved line speed: flexibility allows **faster** assembly time



IMPACT

Easier to route during installation means **better** line ergonomics

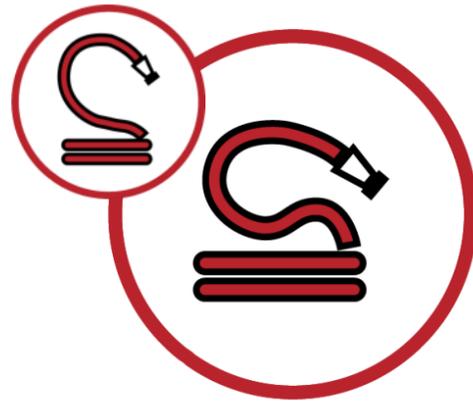


IMPACT

Smaller Minimum Bend Radius (MBR) can mean using less hose



**MXT
ADVANTAGE**



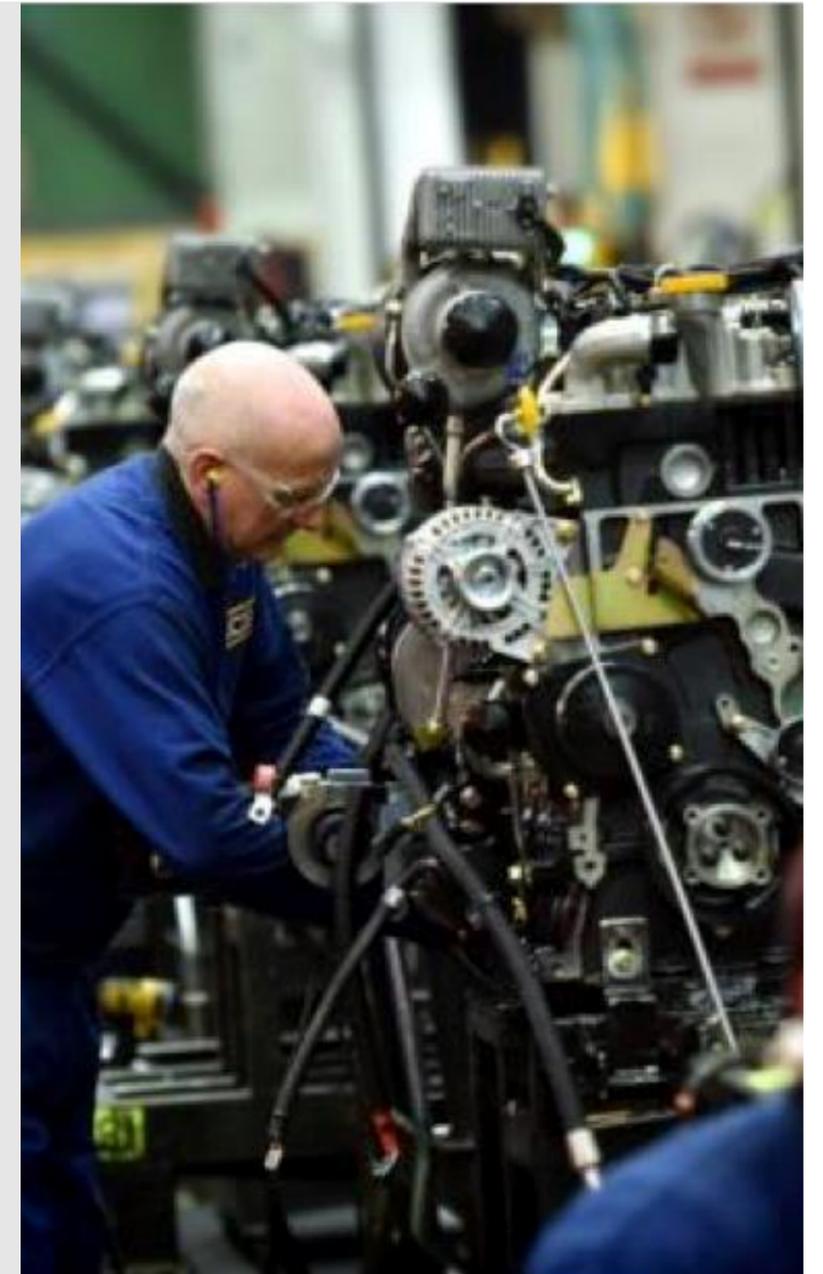
**INCREASED
FLEXIBILITY**

**TEST
RESULT**

**PRODUCT DEVELOPMENT GOAL
INCREASED FLEXIBILITY
UP TO 35%**
COMPARISON TO CM2T (2SC)

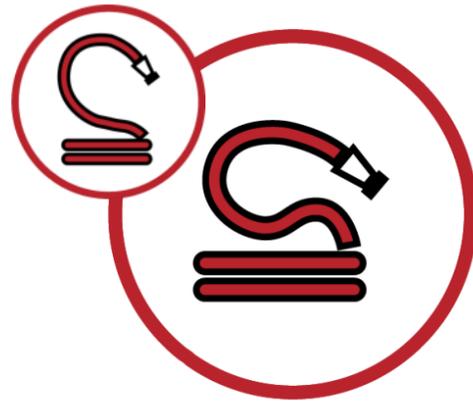
**TEST
RESULT**

**PRODUCT DEVELOPMENT GOAL
INCREASED FLEXIBILITY
UP TO 50%**
COMPARISON TO G2 (2SN)





MXT ADVANTAGE



INCREASED FLEXIBILITY

FLEXIBILITY ADVANTAGE - COMPARISON

-	Size		FORCE-TO-BEND (KG)			Δ	
	DN	"	MXT	CM2T	G2	MXT/CM2T	MXT/G2
-04	6	1/4	TBD	TBD	TBD	TBD	TBD
-05	8	5/16	TBD	TBD	TBD	TBD	TBD
-06	10	3/8	TBD	TBD	TBD	TBD	TBD
-08	12	1/2	1.6	2.4	2.8	67%	57%
-10	16	5/8	2.0	3.1	3.9	65%	51%
-12	19	3/4	2.5	TBD	4.1	TBD	61%
-16	25	1	3.3	TBD	4.7	TBD	70%



MXT

INNOVATION FUELED BY MATERIALS SCIENCE



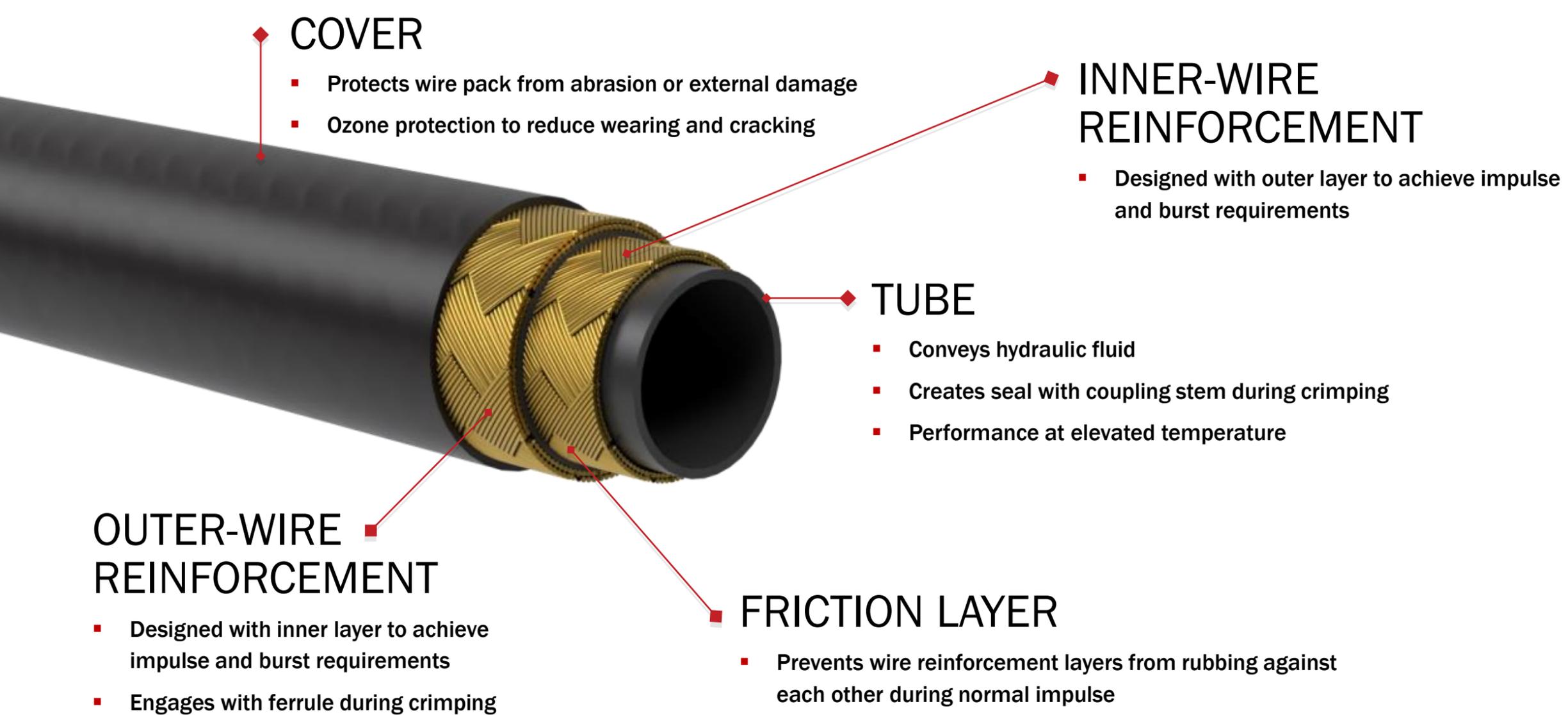


Gates Most Popular Traditional One-Wire Hose Constructions:

G1

M3K
(up to 1/2")

CR1



- Gates Most Popular Traditional Two-Wire Hose Constructions:**
-
- G2
 - M2T
 - M4K
 - CR2

TWO-WIRE CONSTRUCTIONS USE BOTH REINFORCEMENT LAYERS TO MEET INDUSTRY SPECIFICATION REQUIREMENTS OF BURST AND IMPULSE.

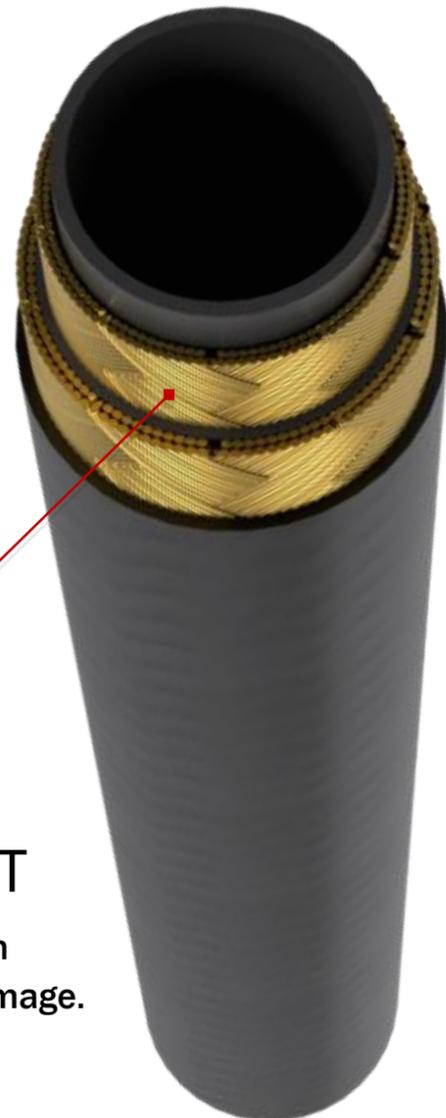


COMMON MISCONCEPTIONS HOSE CONSTRUCTIONS

MYTH #1:

The inner reinforcement layer provides a “safety factor” if the outer reinforcement is damaged.

- The inner and outer reinforcement layer are **NOT** redundant — they don’t work independently; they are designed to meet pressure and performance **TOGETHER**
- The inner and outer reinforcement layer are **NOT** capable of performance without the other
- The inner and outer reinforcement layer are designed to meet the industry specifications **TOGETHER** — they are designed to **WORK AS A SYSTEM**
- **ANY REINFORCEMENT DAMAGE** compromises the performance of the hose and **SHOULD NOT BE USED** – regardless of hose construction



INNER REINFORCEMENT

It’s **NOT** a back-up plan or an insurance policy against damage.

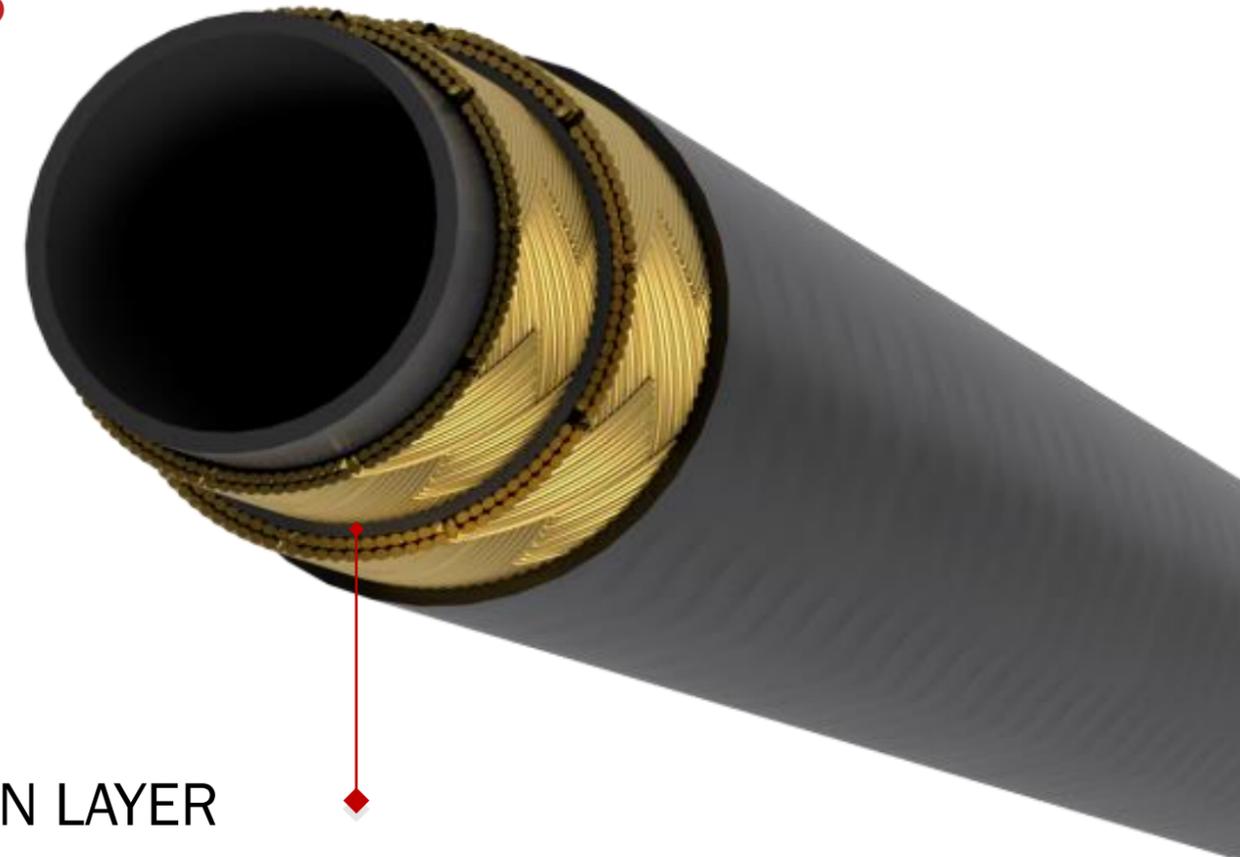


COMMON MISCONCEPTIONS HOSE CONSTRUCTIONS

MYTH #2:

The friction layer between the two wire reinforcement layers provides extra sealing.

- A thin layer of material is **NOT** sufficient to contain hydraulic fluid at the pressures in hydraulic applications
- The friction layer material properties are there to prevent rubbing between the two reinforcement layers – they do **NOT** provide sealing



FRICTION LAYER

It's not a seal. It's **ONLY** job is to prevent the two layers of wire braid from rubbing against each other.



COMMON MISCONCEPTIONS HOSE CONSTRUCTIONS

MYTH #3:

All wire braid layers are the same.

- **WIRE DENSITY** in the wire pack changes the amount of wire in the reinforcement layer based on the design and pressure requirements
- **THE WIRE ITSELF CHANGES** – Various wire gauge or tensile strengths are used to adjust for the performance needs of the design
- **BRAID ANGLES** are adjusted based on the required wire density, wire selection, and hose performance requirements.



COVER

- Protects wire pack from abrasion or external damage
- Ozone protection to reduce wearing and cracking

TUBE

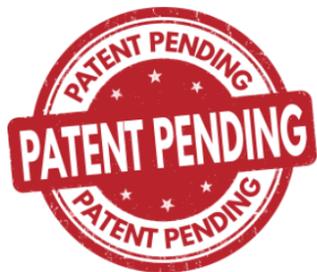
- Conveys hydraulic fluid
- Creates seal with coupling stem during crimping
- Performance at elevated temperature

NEW INNOVATIVE ONE-WIRE REINFORCEMENT

- Designed to achieve impulse and burst requirements
- Engages with ferrule during crimping
- Made with premium materials for higher tensile strength
- Increased wire braid pack density (includes nearly the same length of wire as two-wire reinforcement with higher tensile strength wire)
- Engineered with enhanced wire technology
- Manufactured with our proprietary new wire-braiding process
- Designed to deliver the BEST performance

Gates NEW Next Generation One-Wire Hose Constructions:

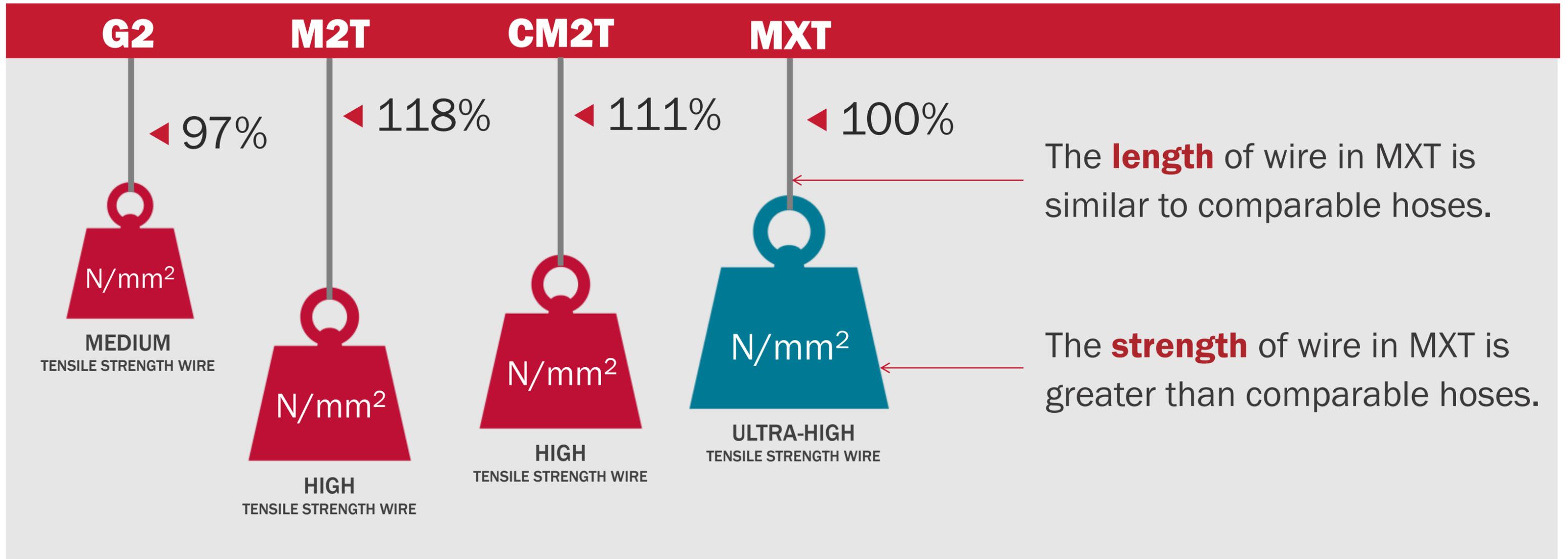
MXT



NEW ONE-WIRE CONSTRUCTIONS **EXCEED INDUSTRY PERFORMANCE STANDARDS** BY LEVERAGING MATERIALS SCIENCE AND PROCESSING EXPERTISE WITH **LESS WEIGHT AND MORE FLEXIBILITY**



MXT | NEXT-GEN ONE-WIRE HOSE CONSTRUCTION



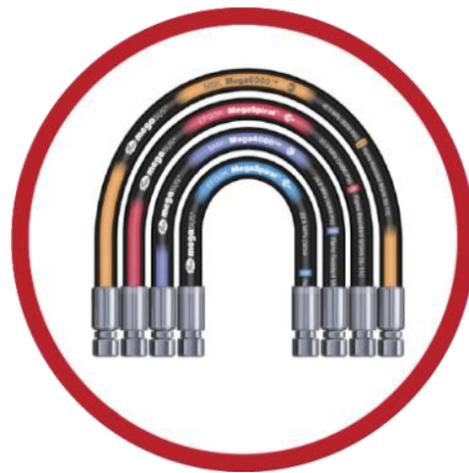
The **length** of wire in MXT is similar to comparable hoses.

The **strength** of wire in MXT is greater than comparable hoses.

THE UNIQUE WIRE PACK MEANS MXT IS FLEXIBLE WITHOUT COMPROMISING PERFORMANCE



PREMIUM SOLUTION



PART OF THE MEGASYS™ FAMILY



IMPACT

One MegaCrimp® coupling fits all



IMPACT

Optimal lifetime



IMPACT

Optimal bend radii



MXT PERFORMANCE



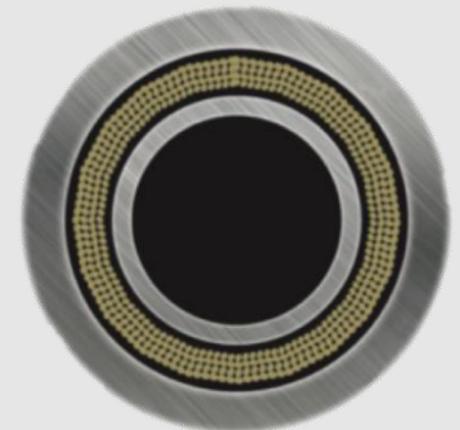
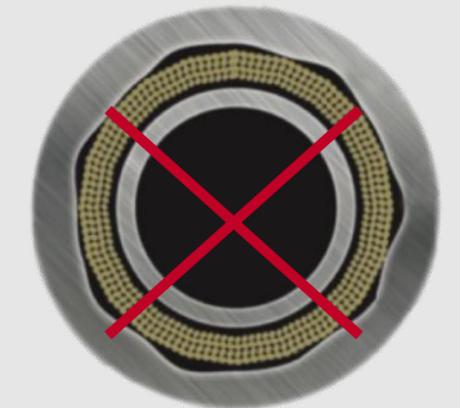
COMPLETE COVERAGE

ONE MEGACRIMP COUPLING FITS ALL

Minimal coupling inventory covers the complete hydraulic line. Gates lowers inventory carrying cost and simplifies crimping.

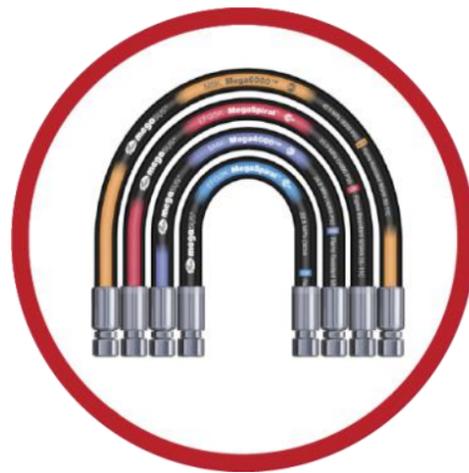
- Simplicity
- Versatility
- Leak free

STANDARD	-04	-05	-06	-08	-10	-12	-16	-20
EN 857 2SC	Red	Red	Red	Red	Red	Red	Red	Red
EN 857 1SC	Red	Red	Red	Red	Red	Red	Red	White
EN 853 2SN	Red	Red	Red	Red	Red	Red	Red	Red
EN 853 1SN	Red	Red	Red	Red	Red	Red	Red	Red
SAE 100R16	Red	Red	Red	Red	Red	Red	Red	Red
SAE 100R17	Red	Red	Red	Red	Red	Red	Red	White
SAE 100R19	Red	Red	Red	Red	Red	Red	White	White
SAE 100R7	Red	Red	Red	Red	White	Red	Red	White
SAE 100R8	Red	White	Red	Red	White	Red	Red	White





PREMIUM SOLUTION



PART OF THE MEGASYS™ FAMILY



IMPACT

One MegaCrimp® coupling fits all



IMPACT

Optimal lifetime



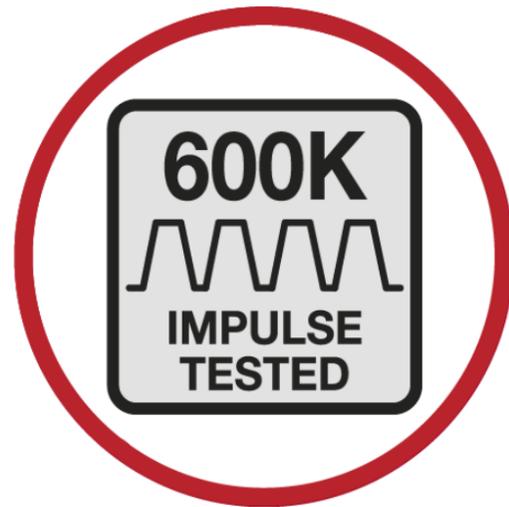
IMPACT

Optimal bend radii



MXT | BRINGING MEGASYS PERFORMANCE (DETAIL)

PREMIUM SOLUTION



MEGASYS REQUIREMENTS

LIFETIME



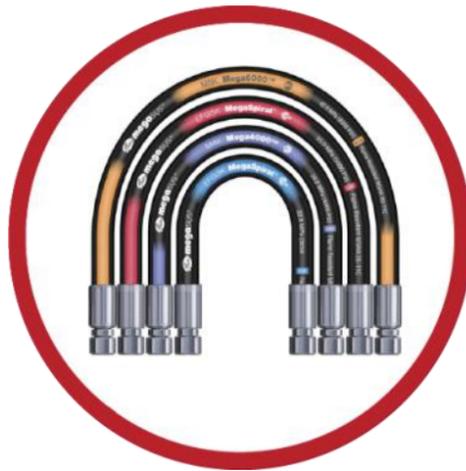
Specification Requirements		GATES MegaSys Requirements	
EN 857 2SC	133% of WP 200,000 Cycles	CM2T	133% of WP 600,000 Cycles
100R16	133% of WP 200,000 Cycles	MXT	133% of WP 600,000 Cycles
100R19	133% of WP 200,000 Cycles	M4K	133% of WP 600,000 Cycles
100R12	133% of WP 500,000 Cycles	EFG4K	133% of WP 1,000,000 Cycles
100R13	120% of WP 500,000 Cycles	EFG5K	120% or 133% of WP 1,000,000 Cycles
100R15	120% of WP 500,000 Cycles	EFG6K	120% of WP 1,000,000 Cycles

MXT | LEAK FREE

SAE J1754-1	Test Pressure	Impulse Cycles	Cool Down Test	1 st Cool Down	2 nd Cool Down	Leak Requirement
CLASS B	133% WP	200K	J1405 Option III	100K cycles	200K cycles	SAE J1176 Class 0
CLASS C	SAE J517	SAE J517	J1405 Option III	None	None	SAE J517



PREMIUM SOLUTION

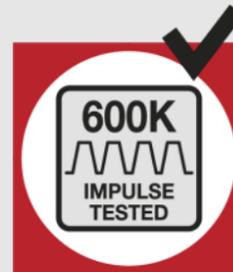


PART OF THE MEGASYS™ FAMILY



IMPACT

One MegaCrimp® coupling fits all



IMPACT

Optimal lifetime



IMPACT

Optimal bend radii



MXT | BRINGING MEGASYS PERFORMANCE (DETAIL)

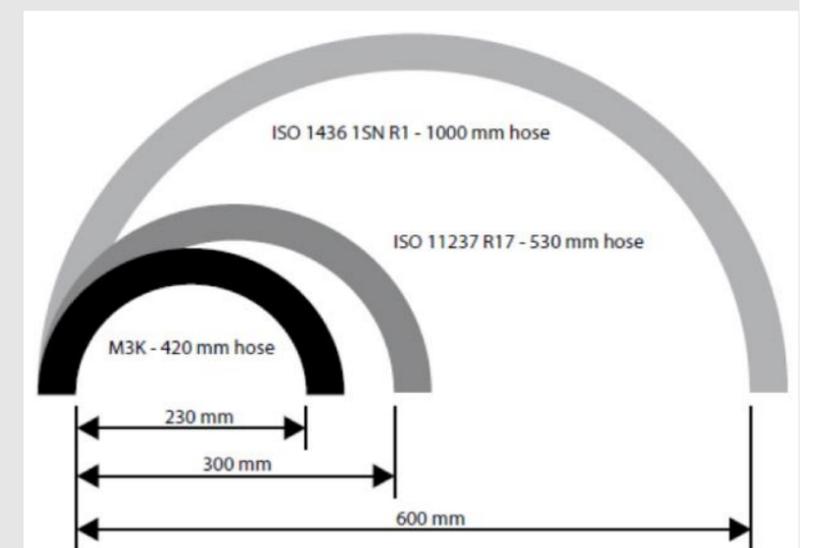
MXT PERFORMANCE



OPTIMAL BEND RADII

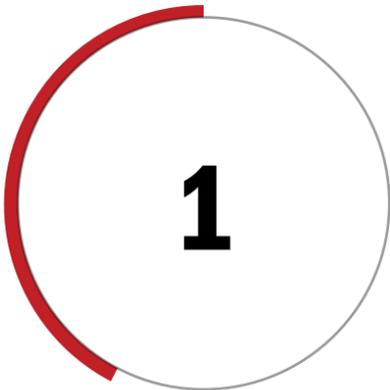
BETTER BEND RADIUS MEANS LESS HOSE

			COMPACT				STANDARD		
Size			MBR (mm)						
-	DN	"	MXT	EN 857 2SC	CM2T	EX2SC	EN 853 2SN	G2	CR2
-04	6	1/4	50	75	50	75	100	50	100
-05	8	5/16	55	85	55	85	115	55	115
-06	10	3/8	65	90	65	90	130	65	130
-08	12	1/2	70	130	90	130	180	90	180
-10	16	5/8	75	170	100	170	200	100	200
-12	19	3/4	120	200	120	200	240	120	240
-16	25	1	150	250	150	250	300	150	300



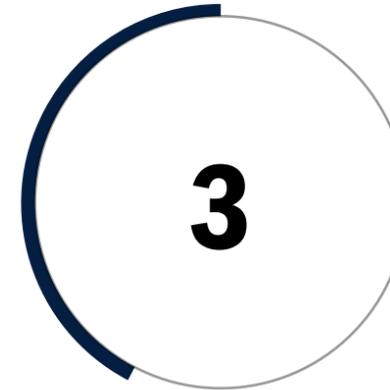


HYDRAULIC SYSTEMS AND APPLICATION DICTATE HOSE CONSTRUCTION



HYDRAULIC SYSTEM REQUIREMENTS

Define the primary criteria for hose selection – primarily pressure and temperature.



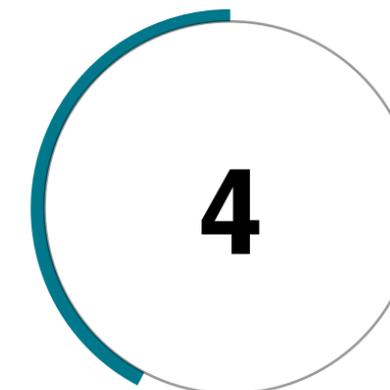
INDUSTRY STANDARDS

Define hose minimum performance parameters, including pressures by sizes, minimum bend radius or impulse cycle requirements.



APPLICATION REQUIREMENTS

Define other hose selection criteria, such as minimum bend radius, abrasion resistant covers, or impact of failure.



HOSE MANUFACTURERS

Differentiate product performance by exceeding industry performance standards, primarily by impulse cycles, minimum bend radius and pressures – differentiate reliability and quality.

ALWAYS CHOOSE THE BEST HOSE CONSTRUCTION FOR YOUR CUSTOMER'S APPLICATION – REGARDLESS OF CONSTRUCTION



MXT
MARKET FIT





MXT



**MARKET
FIT**

**OEM
TESTED TO CUSTOMER SPECIFICATIONS**

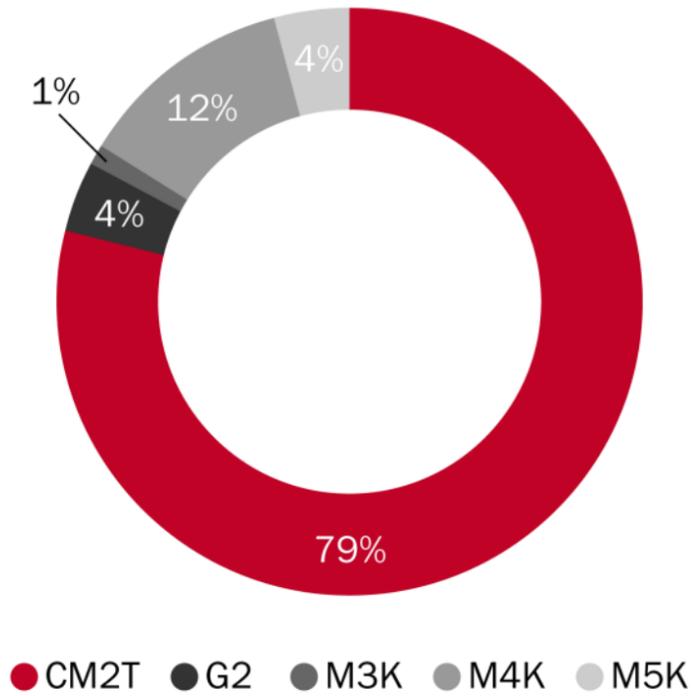


**DISTRIBUTION
DRIVEN BY POSSIBILITY**

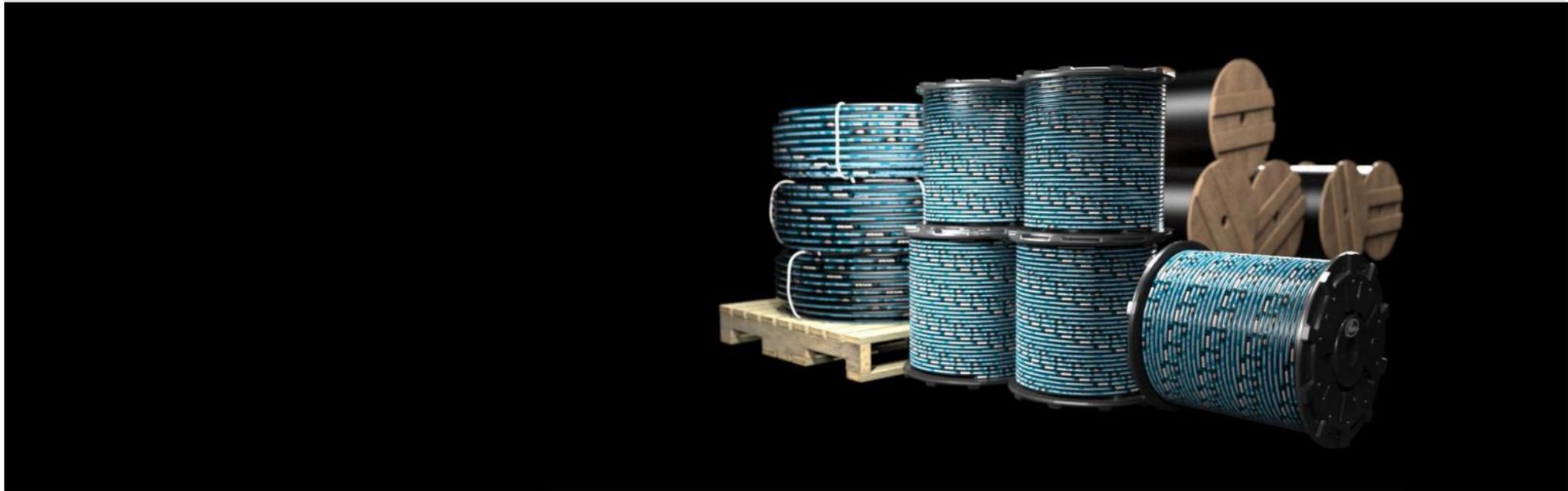




CURRENT DISTRIBUTION CONVERSION POTENTIAL

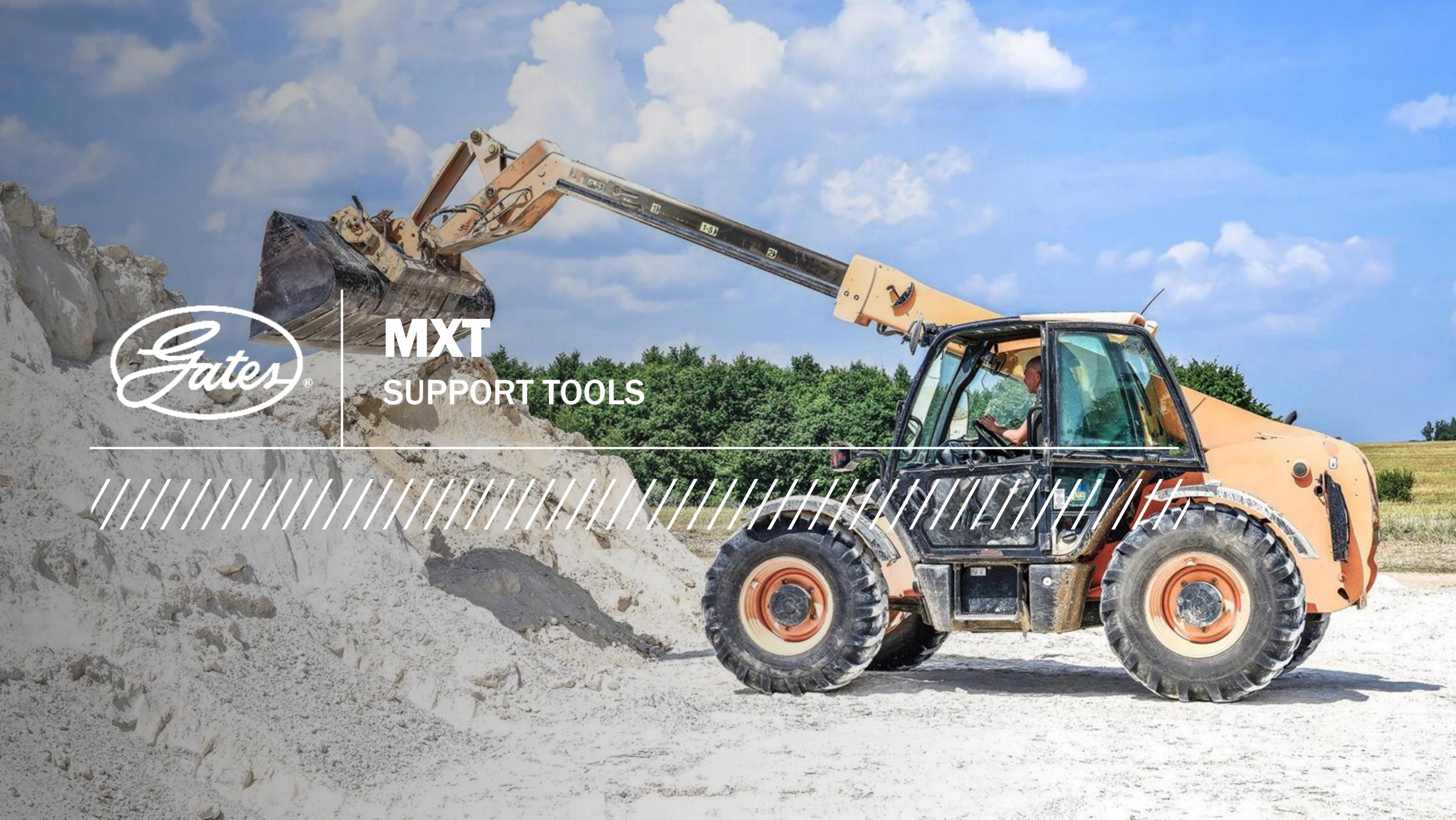


HOSE	STANDARD	-04	-05	-06	-08	-10	-12	-16
CM2T	EN 857 2SC	MXT						
G2	EN 853 2SN	MXT						
M3K	SAE 100R17	MXT	MXT	MXT	MXT	MXT	MXT	
M4K	SAE 100R19	MXT	MXT	MXT	MXT			
M5K	PROPRIETARY	MXT						





MXT
SUPPORT TOOLS





MEET MXT. THE NEXT GENERATION OF PREMIUM HYDRAULICS.

Gates introduces with MXT™ a new hydraulic hose solution that is lighter and more flexible.

This innovative addition to Gates' premium MegaSys™ Hydraulics portfolio is designed specifically to address evolving application challenges. Using materials science and design technologies, Gates helps customers to reduce equipment weight, increase hose assembly ease and speed up assembly time without compromising on performance.

Made with a high-performance reinforcement (patent-pending construction) and high quality rubber, MXT is a universally applicable premium product offering performance above industry standards.

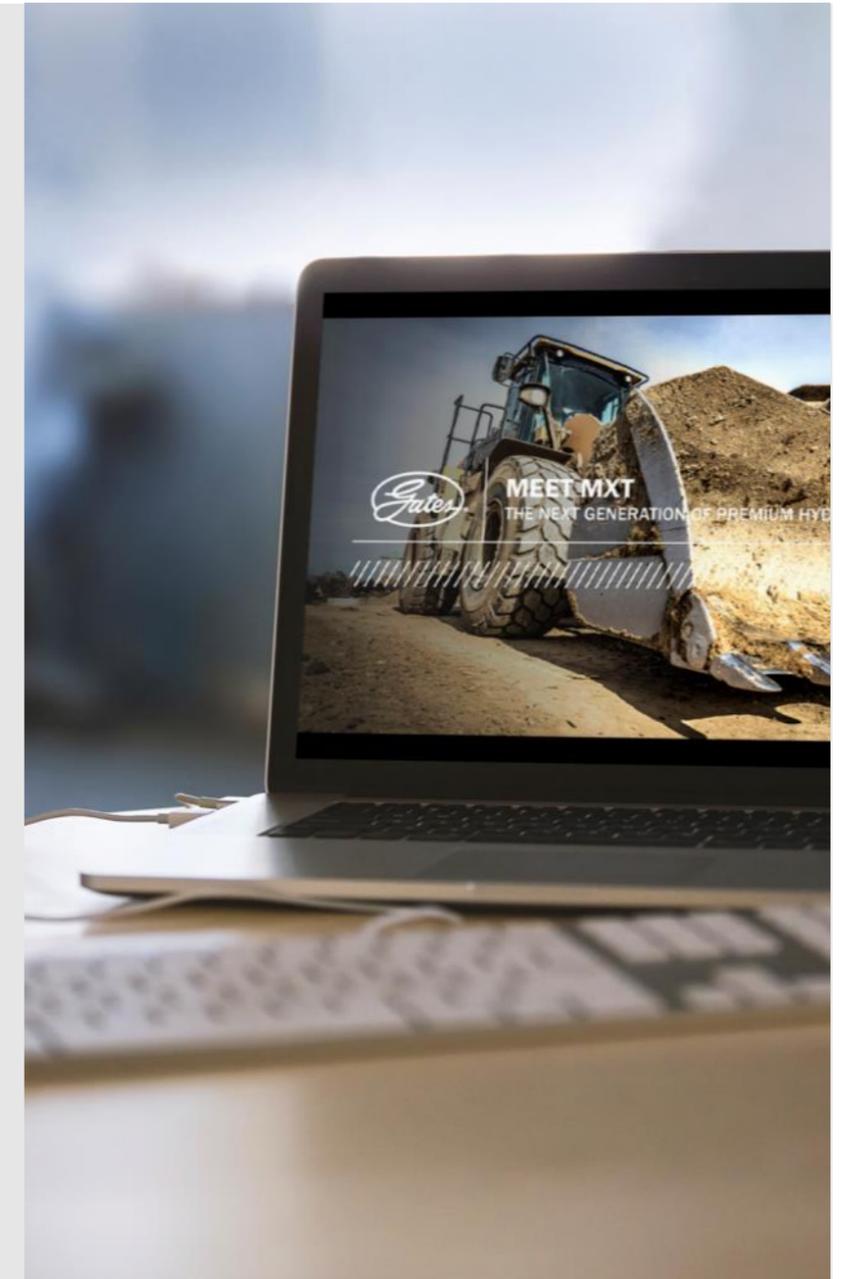
FEATURES + BENEFITS

- Lighter weight for easier handling
- More flexible with lower force-to-bend for faster and more ergonomic installation
- Tested to 3 times the industry standard impulse criteria (600,000 cycles)
- Compatible with MegaCrimp® Couplings and Gates Crimpers
- Proprietary application of materials science and processing technology
- Truly cross-functional, multi-spec hydraulic solution that covers 90% of the wire braid market
- Up to 45% of EN 857 2SC bend radius at rated working pressure

GATES.COM/EUROPE

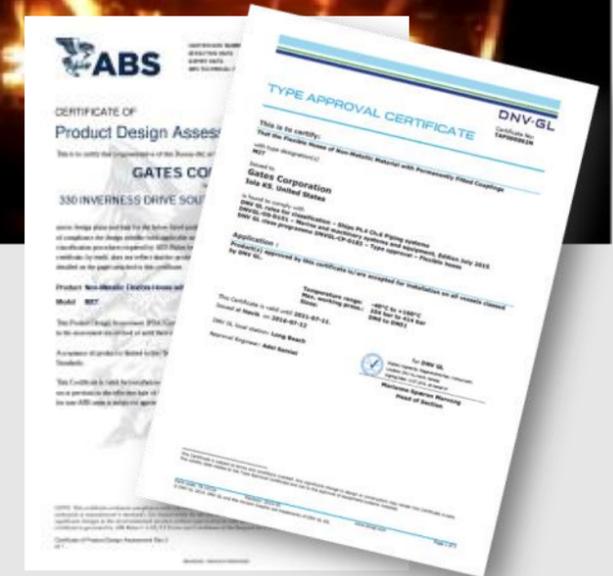
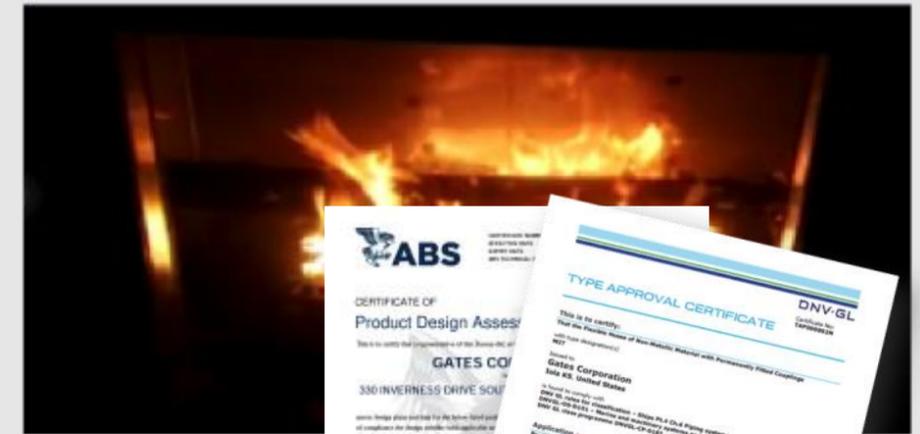
MARKETING MATERIALS AVAILABLE

- Totem
- Advertisement
- Press release product launch
- Thought leadership piece on 'Hose innovation'
- Brochure
- Infographics
- Field Bulletin 169
- Sales presenter
- E-mail signature banner
- Product video & customer testimonial video
- Digital re-activation campaign & Landing page website
- Samples
- DVP&R (as needed for customer specific requests)
- Toolboxes with all MarCom collateral (ZIP-folder)





MARINE OPPORTUNITIES
in-process for type approval certification
ISO 15540 Compliance





MXT

WE LOOK FORWARD TO YOU JOINING OUR ADVENTURE

