# <u>GALVANIZED STEEL & EMT MULTI-GARD®</u> <u>MULTI-CELL RACEWAY</u>



**Galvanized Steel** 



EMT



### Galvanized Steel/PVC Coated Steel Multi-Gard®

Galvanized Steel/PVC-Coated Multi-Gard<sup>®</sup> is a multi-celled raceway system designed for bridge applications and other areas requiring heavy duty protection. Steel Multi-Gard is manufactured in 10 ft. lengths with pre-installed, pre-lubricated, smoothwall PVC innerducts.

Applications:Areas subject to physical damage – vandalism &<br/>crush. Bridge crossingsInnerducts:PVC 3-Way 1-1/2" or 4-Way 1-1/4"



#### Features:

- Pre-lubricated PVC innerducts for very low co-efficient of friction and lay straight for long pulls.
- Pre-installed reverse spin coupling allows coupling Multi-Gard together without turning pipe.
- 3 set screws keep coupling from backing off, before and after installation.
- Standard sweeps and terminators.
- Patented flexible bend.
- Conforms to NEC Article 300.22 and NFPA 90A for installation of communication cables inside buildings.
- All bends have "cut-through" resistant innerducts in bends to avoid rope cutting into adjacent occupied innerduct.
- Gasketed coupling body and PVC innerducts are designed to handle jetting equipment or line blowing.

#### **Technical Information:**

- Joint Tensile: Approx. 500 lbs. (for reference only)
- 10' length

#### Assembly Instructions:

- 1. Remove cap and loosen set screws on coupling. Spin back to allow for insertion.
- 2. Insert male into female end and spin coupling forward to bottom out.
- 3. Check for alignment of marked innerduct and marked hole.
- 4. Tighten set screws.





### Galvanized Steel/PVC Coated Steel Multi-Gard®

### 10' Steel Multi-Gard with Spin Coupling

Part No.	Description	Coupling OD	Outerduct Avg. OD	Innerduct O.D.	Innerduct I.D.	Pkg. Qty.	Wt. per 100 ft.
MRSS4S-010	4-Way Galvanized Steel	5.0	4.5	1.31	1.19	170'	1130
MRSS3S-010	3-Way Galvanized Steel	5.0	4.5	1.66	1.50	170'	1130
MRSS4STX-010	4-Way Galvanized Steel	5.0	4.5	1.31	1.19	170'	1130
MRSS4STX1-010	4-Way Galvanized Steel	5.0	4.5	1.31	1.19	170'	1130
MPSS4S-010	4-Way PVC Coated Steel	5.1	4.6	1.31	1.19	170'	1200
MPSS3S-020	3-Way PVC Coated Steel	5.1	4.6	1.66	1.50	170'	1200

Standard Galvanized and PVC Coated Steel Multi-Gard inner ducts are PVC white, grey, grey, grey MRSS4STX-010 inner ducts are PVC yellow, white, orange, red MRSS4STX1-010 inner ducts are PVC yellow, black, orange, red



#### **Fixed Bends with Spin Coupling**

Multi-Gard fixed bends use the same coupling design as straight sections. All bends are provided with engineered plastic innerducts to avoid rope cut-through into adjacent innerducts – or PVC innerducts.

Pos. 1 Product	Position 2 Outerduct	Pos. 3 Degree	Pos. 4 Radius	Pos. 5 O.D.	Pos. 6 Innerduct	Pos. 7 Innerduct Wall Type	**Pos. 8 PVC Innerducts
M = Multi-Cell	R = Galv. Steel	3 = 11¼°	H = 4 ft.	N = 4"	4 = 4-Way	S = Smooth	ТΧ
	P = PVC Coated Steel	5 = 22 ½ °	F = 3 ft.		3 = 3-Way		TX1
	*T = Galv. Steel	7 = 45 °					

\* "T" bends are manufactured with PVC Innerducts only.

\*\*Only use "TX" when installing MTSS4STX-020 and "TX1" when installing MRSS4STX1-020.

 $9 = 90^{\circ}$ 

#### Part Number Example: MR7HN4S

Position:	1	2	3	4	5	6	7
Example:	М	R	7	Н	Ν	4	S
Description:	Multi-Cell	Galv. Steel	45°	4 ft.	4"	4-Way	Smooth

#### Part Number Example: MT7HN4STX

Position:	1	2	3	4	5	6	7	8
Example:	М	т	7	Н	Ν	4	S	ТХ
Description:	Multi-Cell	Galv. Steel	45°	4 ft.	4"	4-Way	Smooth	Use with MRSS4STX-010

### Galvanized Steel/PVC Coated Steel Multi-Gard®

#### Flexible Steel Bends with Spin Coupling

Multi-Gard flexible bends use a patented design capable of a 4' minimum bend radius and use the same coupling design as straight sections and fixed bends. All bends are provided with engineered plastic innerducts to avoid rope cut-through into adjacent innerducts. NOTE: After positioning the bend in its application, it is necessary to cut off the excess innerduct material flush to pipe and deburr both the I.D. and O.D. of the innerduct to remove snags.

Part No,	Description
MRFB4	4-Way Flexible Bend
MRFB3	3-Way Flexible Bend



### Terminators

Termination kits allow for sealing inner and outerducts. Each kit contains innerduct sealing plugs with tie rope. Standard terminators allow for end termination.

Part Number:	Part Number: Description:				
MFT14	4-Way Standard Terminator	1	2.2 lbs.		
MFT13	3-Way Standard Terminator	1	2 lbs.		



### **Deflection Joint**

Part Number:	Description:	Package Quantity	Wt. Each		
MROS4	4-Way GS Offset/Deflection Joint	1	25 lbs		
MROS3	3-Way GS Offset/Deflection Joint	1	25 lbs.		



### Galvanized Steel/PVC Coated Steel Multi-Gard®

#### **Expansion Joints**

Expansion Joints allow for thermal expansion and contraction of outerduct. Steel expansion joints are recommended every 800 feet on bridge crossing applications. \* Expansion Joints are not required in underground applications

Part Number:	Description:	Package Quantity	Wt. Each
MREC4	4-Way 8" Stroke	1	60 lbs
MREC3	3-Way 8" Stroke	1	42 lbs.



#### **Spare Spacers**

Part Number:	Description:	Package Quantity		BLA
MAES4	4-Way End Spacers	1 ea = 5 spacers		RA
MAES3	3-Way End Spacers	1 ea = 5 spacers	VE	

#### **Transition Adapters**

Transition adaptors (spigot to spigot) allow different outerducts to be coupled together while maintaining same innerduct. Part numbers configured from smaller duct to larger duct. (See PVC section for additional options.)

Pos. 1 Product	Positio Outerd	n 2 uct	Pos. 3 Descriptio	n O	Pos. 4 Outerduct		Pos. 5 Innerducts	s						
M = Multi-Cell	X = Typ	еC	A = Adapte	r R =	R = Galv. Steel		3 = 3-Way							
	F = Type	e 40					4 = 4-Way	/						
	D = Type	e 80												
	B = F/G	BR										7	END SPACER	
	H = F/G	HW					OUTERDU	CT ADAPTE	R \		SLEEVE	/		
	E = EN	/IT							`	1	2		$\backslash$	
Part Number B	Example: N	//FAR4								Â				
Position:	1	2	3	4	5		Jumme	1	mina	adatad	Kankin		Anterior	
Example:	М	F	A	R	4	STE		ſ	1			2	THIN WALL C	COUPLINGS
Description:	Multi-Cell	Type 40	Adapter	Galv. Steel	4-Way	U.L.			/	ſ	MODIFIED	COUPLIN	IG BODY (TAPE)	)
						THREAD	ED FEMALE ADAPTE	R	]					

PVC MULTI-GARD

# Galvanized Steel/PVC Coated Steel Multi-Gard®

### Galvanized Steel Field Bendable Sweeps

Part Number:	Description:	Package Quantity			
MRSS4SFB-010	4-Way Field Bendable Sweep – 10 ft.	1			
MRSS3SFB-010	3-Way Field Bendable Sweep – 10 ft.	1			



### **EMT Multi-Gard®**

Multi-Gard EMT is a multi-cell conduit system for use inside buildings. It has pre-installed PVC innerducts, comes in 10 ft. lengths, and has a gasketed coupling body.

Applications: Ind Innerducts: 3-V

Indoor – Inside Buildings 3-Way 1-1/2" or 4-Way 1-1/4"

#### Features:

- 10' lengths with set screw couplings.
- Standard sweeps and terminators
- Transition adapters available such as EMT to Type C Multi-Gard.
- PVC innerducts lay straight for longer pulls.
- PVC innerducts are pre-lubricated for longer pulls.
- All metallic components are UL Listed and conform to NFPA 90A for installation of communication cables inside buildings.
- All bends have "cut through" resistant innerducts to avoid rope cutting into adjacent occupied innerduct.
- Accessories such as line blowing kits and pull line available.

#### **Technical Information:**

- Joint Tensile: Approx. 500 lbs. (for reference only)
- 10' length

#### Assembly Instructions:

- 1. Remove cap and loosen set screws on open end of coupling.
- 2. Insert male end of conduit into female coupling, checking for alignment of marked innerduct into marked hole.
- 3. Tighten set screws.





**EMT Multi-Gard®** 

### 10' EMT Multi-Gard with Set Screw Coupling



#### Fixed Bends EMT with Set Screw Coupling

Multi-Gard fixed bends use the same coupling design as straight sections. All bends are provided with engineered plastic innerducts to avoid rope cut-through into adjacent innerducts..

Part No.	Description	Pkg. Qty.	Wt. per 100 ft.
ME9FN4S	4-Way 90ºx36" Radius	1	39
ME7FN4S	4-Way 45°x36" Radius	1	20
ME9FN3S	3-Way 90ºx36" Radius	1	39
ME7FN3S	3-Way 45°x36" Radius	1	20



#### **Field Bendable Sweeps**

Multi-Gard flexible bends use a patented design capable of a 4' minimum bend radius and use the same coupling design as straight sections and fixed bends. All bends are provided with engineered plastic innerducts to avoid rope cut-through into adjacent innerducts. NOTE: After positioning the bend in its application, it is necessary to cut off the excess innerduct material flush to pipe and deburr both the I.D. and O.D. of the innerduct to remove snags.

Part No.	Description	Pkg. Qty.
MESS4SFB-010	4-Way EMT Field Bendable Sweep - 10 ft.	1
MESS3SFB-010	3-Way EMT Field Bendable Sweep - 10 ft.	1



## **EMT Multi-Gard®**

### **Transition Adapters**

Transition adaptors (spigot to spigot) allow different outerducts to be coupled together while maintaining same innerduct. Part numbers configured from smaller duct to larger duct.

Pos. 1 Product	Position 2 Outerduct	Pos. 3 Description	Pos. 4 Outerduct	Pos. 5 Innerducts
M = Multi-Cell	X = Type C	A = Adapter	R = Galv. Steel	3 = 3-Way
	F = Type 40		X = Type C	4 = 4-Way
	D = Type 80		E = EMT	
	E = EMT			-

#### Part Number Example: MEAR4

Position:	1	2	3	4	5
Example:	М	E	А	R	4
Description:	Multi-Cell	EMT	Adapter	Galv. Steel	4-Way

#### **Terminators for EMT Multi-Gard**

Part No.	Description	Pkg. Qty.	Wt. Ea. (Ibs.)
MET64	4-Way Standard Enclosure Terminator	1	2.5
MET63	3-Way Standard Enclosure Terminator	1	2.5



#### **Spare Spacers**

Part Number:	Description:	Package Quantity
MAES4	4-Way End Spacers	1 ea = 5 spacers
MAES3	3-Way End Spacers	1 ea = 5 spacers

