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**THE KUPFERLE FOUNDRY COMPANY**

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*Since 1857*

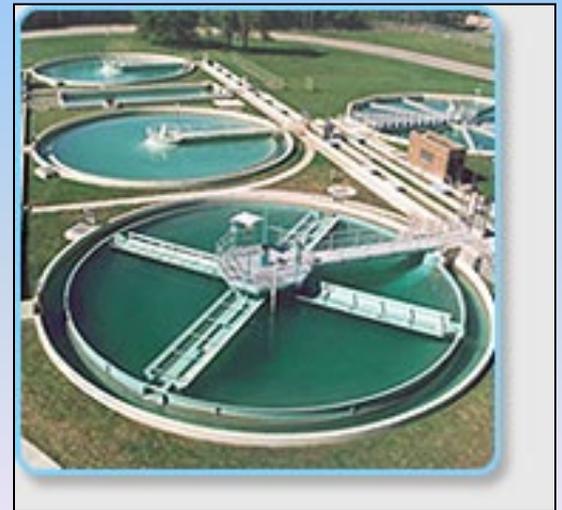
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# **Effective and Efficient Plant Washdown**

# The Purpose of Washdown

Washdown is an important part of plant operations. The main areas that use washdown procedures are:

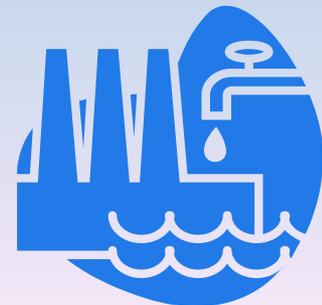
- Washdown for Retention Basins
- Washdown for Clarifiers
- Washdown of sludge holding tanks
- Pump/Lift Station Clean Up
- Equipment Clean Up



# Why Specify and Use Kupferle for Washdown?

*Helping you keep water “clean” for your customers!*

- Products specifically designed and engineered for the application
- Products that are easy to operate and are a better value for the dollar
- Products that are easy for utilities to maintain from above ground
- Provides for multiple options and customization
- Provide submittal spec & cut sheets (pdf and AutoCAD formats)
- Fastest order fulfillment in the industry (2 weeks or less)
- Superior customer service and support



# Kupferle Washdown Products

## Monitor Hydrants 2" and 4"

**MainGuard  
Monitor Hydrant**



## Monitor Stands 2" and 4"

**MainGuard #44MS-4  
Monitor Stand**



# MAINGUARD™

## MainGuard Series Monitor Hydrants



Model #77M  
(2" washdown)



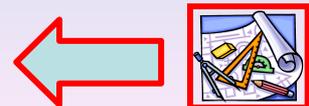
Model #7500M  
(4" washdown)



# MainGuard #77M Monitor Hydrant

## FEATURES

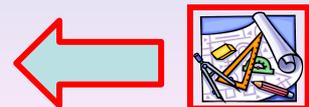
- 2" monitor hydrant designed & engineered for washdown
- Self-draining, non-freezing
- Quick-disconnect allows need for one monitor
- Stream shaper nozzle with ranges up to 150 feet
- Eliminates cumbersome hoses, clean up
- Improves worker safety
- 2" FIP vertical inlet standard (horizontal inlet available)
- Fully serviceable from above ground – no digging!



# MainGuard #7500M Monitor Hydrant

## FEATURES

- 4" monitor hydrant designed & engineered for washdown
- Self-draining, non-freezing
- Quick-disconnect allows need for one monitor
- Stream shaper nozzle with ranges up to 150 feet
- Eliminates cumbersome hoses, clean up
- Improves worker safety
- 4" MJ inlet standard (6" MJ available)
- Fully serviceable from above ground – no digging!





## Latest Technology for Plant Washdown



# MAINGUARD™

## MainGuard Series Monitor Stands



Model #44MS-2  
(2" washdown)



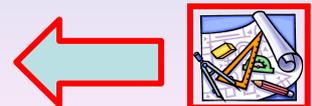
Model #44MS-4  
(4" washdown)



# MainGuard #44MS-2 Monitor Stand

## FEATURES

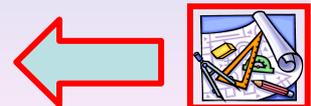
- 2" monitor hydrant designed & engineered for washdown
- Mounts onto concrete pad
- Quick-disconnect allows need for one monitor
- Stream shaper nozzle with ranges up to 150 feet
- Connects to hose with quick-disconnect
- Improves worker safety



# MainGuard #44MS-4 Monitor Stand

## FEATURES

- 4" monitor hydrant designed & engineered for washdown
- Mounts onto concrete pad
- Quick-disconnect allows need for one monitor
- Stream shaper nozzle with ranges up to 150 feet
- Connects to hose with quick-disconnect
- Improves worker safety



# Kupferle Washdown Products

## Post Hydrants 2" and 4"

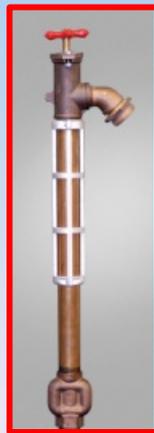
Eclipse  
#2 Series  
Post Hydrant



MainGuard Series  
Post Hydrant



TruFlo Series  
Post Hydrant



## Yard Hydrants 1 and 3/4"

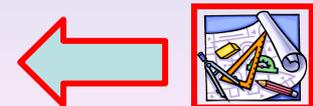
Truflo Series  
Yard Hydrant



# Eclipse #2 Post Washdown Hydrant

## FEATURES

- Specifically designed and engineered for washdown
- Optional two nozzle design
- All brass working parts
- Multiple inlets available (2"-3" Iron Pipe, 2"-4" Mechanical Joint)
- Multiple outlet options (MIP, NST, Quick Disconnect Adapters, etc.)
- Optional backflow prevention (vacuum breaker, ball check valves)
- Customizable with multiple accessories
- Fully serviceable from above ground – no digging!

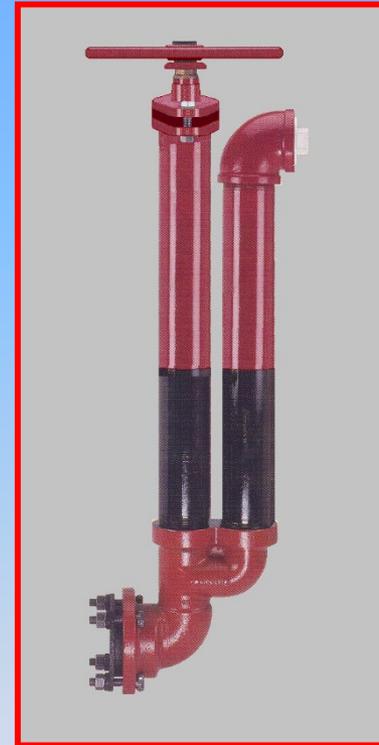


# MAINGUARD™

## MainGuard Series Post Hydrants



Model #80WD  
(2" washdown)



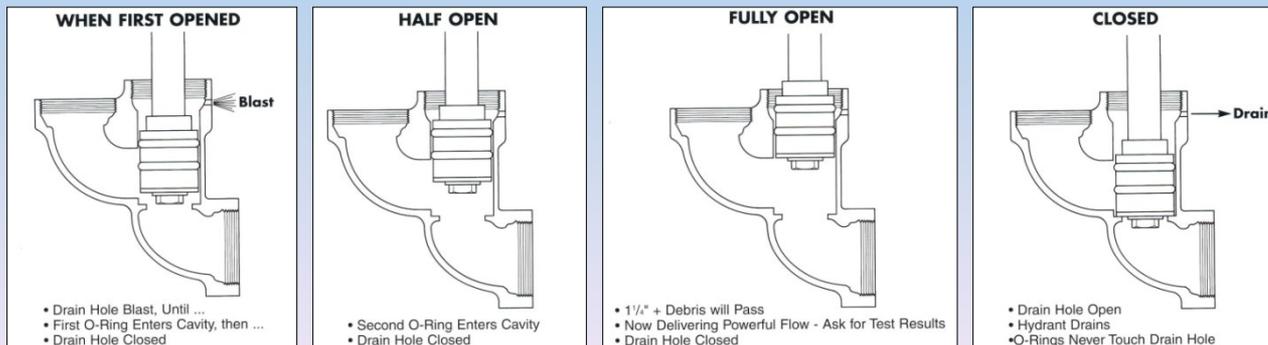
Model #8000WD  
(4" washdown)



# MainGuard #80WD Washdown Hydrant

## FEATURES

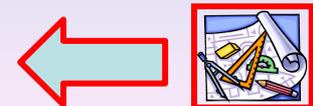
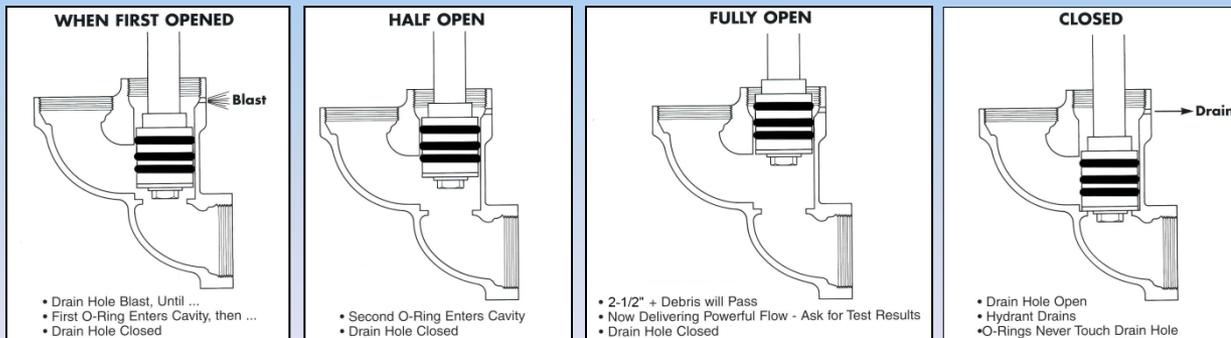
- Specifically designed and engineered for washdown
- Unique 2" valve design allows for "full flow" of water
- 100% hollow flow pipe assures scouring power
- Plunger design allows for throttling of valve
- Standard hand wheel for easy opening/closing
- Horizontal and Vertical inlet available
- Optional backflow prevention (vacuum breaker, ball check valves)
- Locking cover and iron nozzle cap standard
- Multiple outlet options (MIP, NST, Quick Disconnect Adapters, etc.)
- No special operating wrench needed (corporation wrench)
- Fully serviceable from above ground – no digging!



# MainGuard #8000WD Washdown Hydrant

## FEATURES

- Specifically designed and engineered for washdown
- Unique 4" valve design allows for "full flow" of water
- 100% hollow flow pipe assures scouring power
- Plunger design allows for throttling of valve
- Optional backflow prevention (vacuum breaker, ball check valves)
- Multiple outlet options (MIP, NST, Quick Disconnect Adapters, etc.)
- Standard handwheel for easy opening/closing
- Fully serviceable from above ground – no digging!

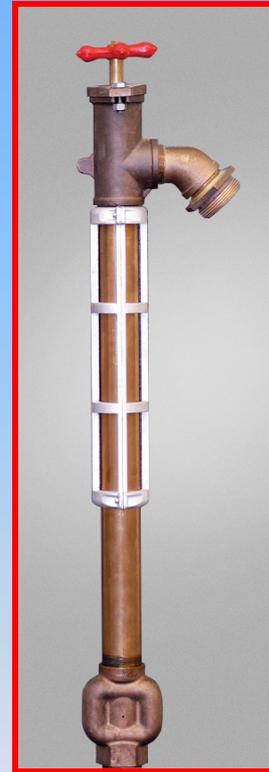


# TRUFLO

## Truflo Series Post Hydrants



Model #TF200  
(2"washdown)



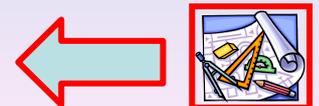
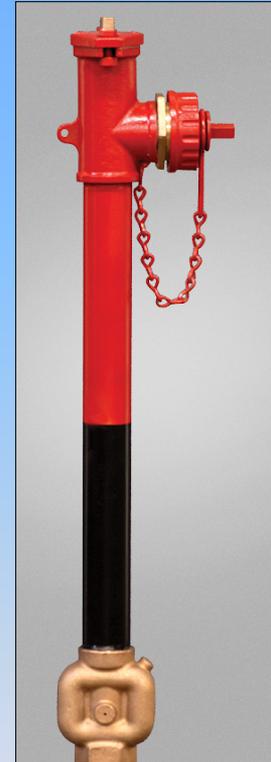
Model #TF300  
(2"washdown)



# TruFlo #TF200 Post Hydrant

## FEATURES

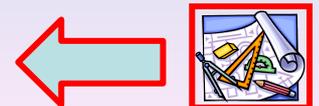
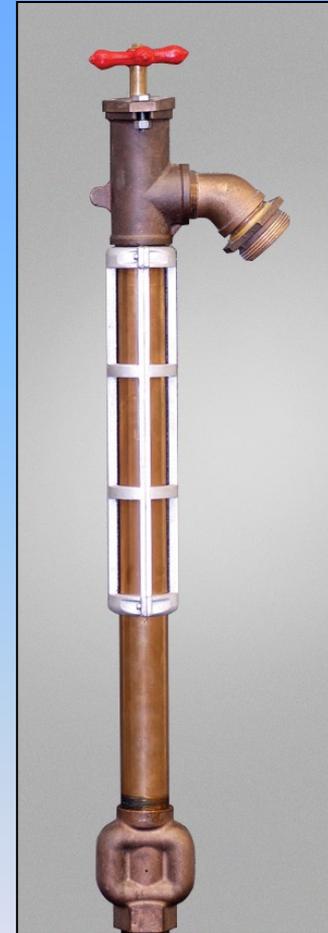
- Specifically designed and engineered for washdown
- 2" valve design allows for "full flow" of water
- Plunger design allows for throttling of valve
- Optional backflow prevention (vacuum breaker, ball check valves)
- All brass construction
- Multiple outlet options (MIP, NST, Quick Disconnect Adapters, etc.)
- Fully serviceable from above ground – no digging!



# TruFlo #TF300 Post Hydrant

## FEATURES

- All brass construction with sturdy aluminum guard
- Specifically designed and engineered for washdown
- 2" valve design allows for "full flow" of water
- Optional backflow prevention (vacuum breaker, ball check valves)
- Multiple outlet options (MIP, NST, Quick Disconnect Adapters, etc.)
- Fully serviceable from above ground – no digging!

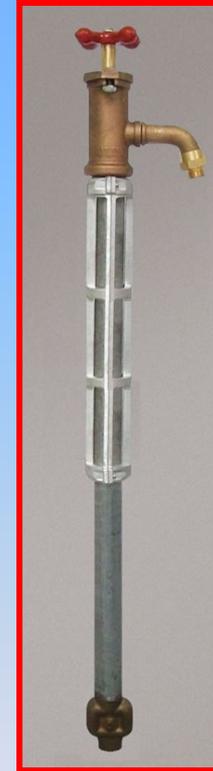


# TRUFLO

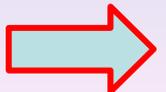
## Truflo Series Post Hydrants



Model #TF100B  
(3/4" or 1" washdown)



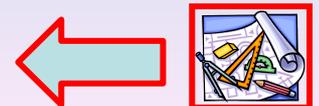
Model #TF100P  
(3/4" or 1" washdown)



# Truflo #TF100B Washdown Hydrant

## FEATURES

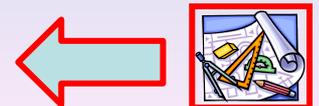
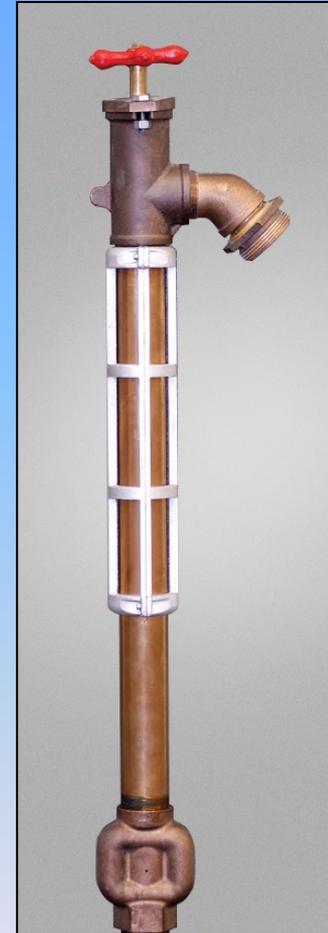
- All brass construction
- Specifically designed and engineered for washdown
- 1" valve design allows for "full flow" of water
- Optional backflow prevention (vacuum breaker, ball check valves)
- Multiple outlet options (MIP, NST, Quick Disconnect Adapters, etc.)
- Fully serviceable from above ground – no digging!



# Truflo #TF100P Washdown Hydrant

## FEATURES

- All brass construction with sturdy aluminum guard
- Specifically designed and engineered for washdown
- 1" valve design allows for "full flow" of water
- Optional backflow prevention (vacuum breaker, ball check valves)
- Multiple outlet options (MIP, NST, Quick Disconnect Adapters, etc.)
- Fully serviceable from above ground – no digging!



# The Kupferle Foundry Company

**Manufacturer of Hydrants for over 164 years!**

Specify Kupferle products with confidence and serve your utility clients well!

- Products specifically designed and engineered for the application
- Products that are easy to operate and are a better value for the dollar
- Products that are easy for utilities to maintain from above ground – no digging!



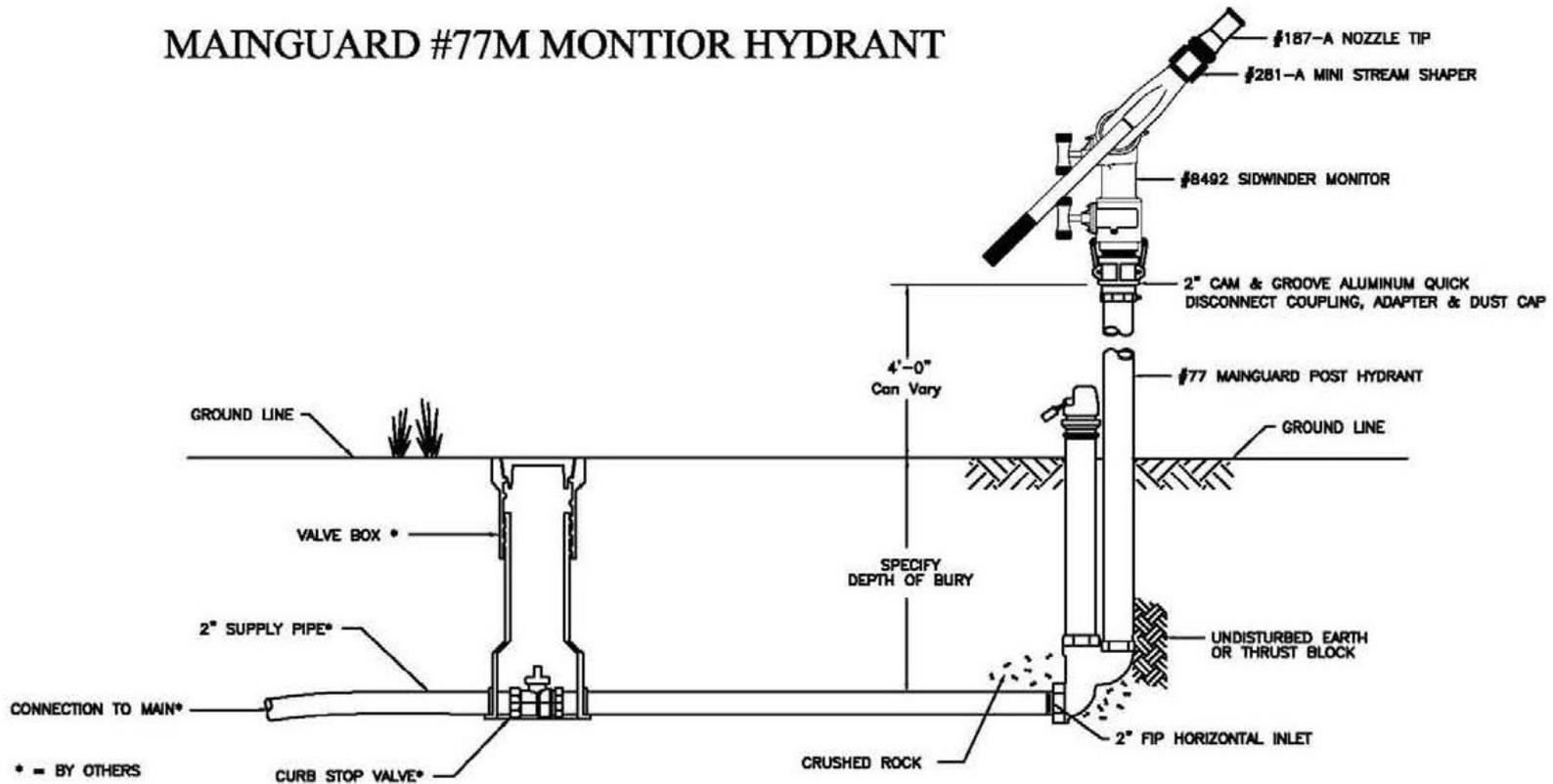
**1-800-231-3990**

**dougw@hydrants.com**

**www.hydrants.com**



# MAINGUARD #77M MONTIOR HYDRANT



#77M MONITOR HYDRANT ASSEMBLY SHALL INCLUDE A #77 MAINGUARD 2" POST HYDRANT AND A SIDEWINDER #8492 ELK-O-LITE MONITOR DESCRIBED AS FOLLOWS: THE MAINGUARD #77 POST HYDRANT SHALL BE NON-FREEZING, SELF DRAINING TYPE WITH A \_\_\_\_\_' DEPTH OF BURY. THE HYDRANT WILL BE FURNISHED WITH A 2" VERTICAL OR HORIZONTAL FIP INLET OR 2" MJ INLET, A NON-TURNING OPERATING ROD AND BE OPERATED WITH A 1-1/2" PENTAGON WRENCH. WHEN OPEN, THE VALVE SHALL BE 100% UNOBSTRUCTED AND DRAIN HOLE SHALL BE COVERED. THE OPERATING DRIVE MECHANISM SHALL BE OF BONZE-TO-BRONZE DESIGN WITH AN ALUMINUM PLUNGER AND BE SERVICEABLE FROM ABOVE GRADE WITH NO DIGGING. THE #8492 ELK-O-LITE SIDEWINDER MONITOR SHALL BE CONSTRUCTED FROM LIGHT WEIGHT CAST ALUMINUM WITH A FULLY VANED 2" WATERWAY PRODUCING A FRICTION LOSS FACCTOR OF 26 PSI AT 500 GPM; MONITOR SHALL BE CAPABLE OF 360 DEGREE HORIZONTAL ROTATION AND ALLOW FOR VERTICAL POSITIONING WITH STOP LOCATIONS AT 90 DEGREES ABOVE AND 45 DEGREE BELOW THE HORIZONTAL PLANE. THE OUTLET OF THE MONITOR SHALL INCLUDE A 1-1/2" #281-A MINI STREAM SHAPER AND A #187-A ALUMINUM NOZZLE TIP WITH A 1-1/2" FEMALE INLET AND A 15/16" FEMALE OUTLET, THE #77 MAINGUARD POST HYDRANT AND THE #8492 SIDEWINDER MONITOR SHALL HAVE A 2" ALUMINUM CAM AND GROOVE QUICK DISCONNECT COUPLER AND ADAPTER WITH DUST CAP AS MANUFACTURED BY KUPFERLE FOUNDRY CO., ST. LOUIS, MO. & ELKHART BRASS MFG CO., ELKHART, IN OR APPROVED EQUAL.

1	2-15-13	NOZZLE TIP OUTLET SIZE CHANGE-G.B.
NO	DATE	REVISION

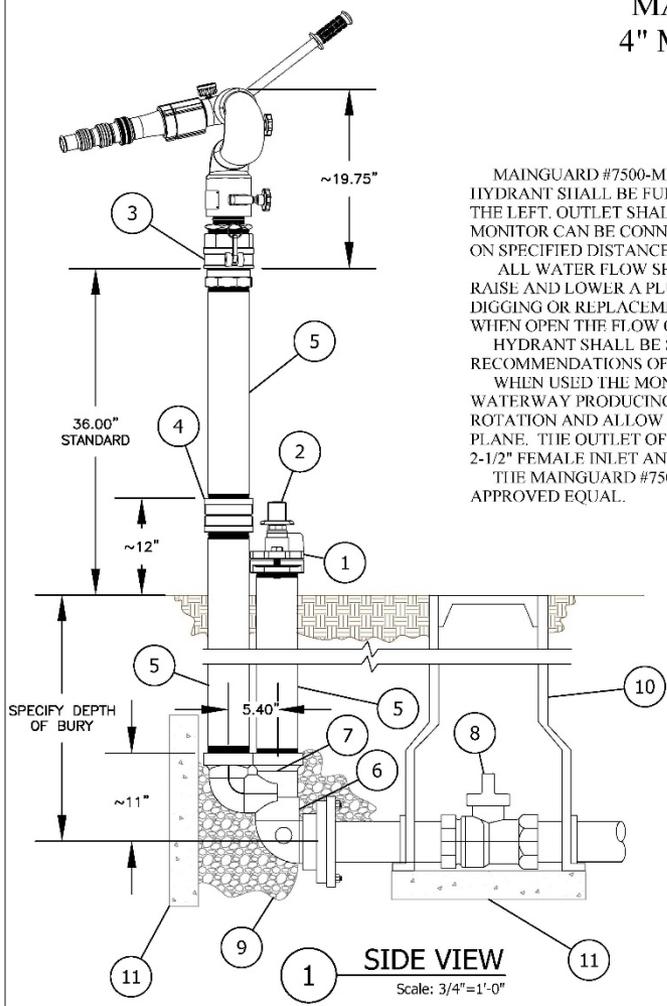
THIS DRAWING IS THE PROPERTY OF THE KUPFERLE FOUNDRY COMPANY. IT IS NOT TO BE USED OR DUPLICATED WITHOUT PERMISSION OF THE OWNER.

DRAWN  
G.B.  
APPROVED  
DATE  
08-18-10  
MAT'L

**KUPFERLE FOUNDRY COMPANY**  
 2611 NORTH 9TH STREET, ST. LOUIS, MO 63102  
 314-231-8738 800-231-3090 FAX 314-231-2820  
<http://www.hydrants.com>  
 PART NO. #77M MAINGUARD MONITOR HYDRANT



# MAINGUARD #7500-M 4" MONITOR HYDRANT SPEC SHEET



MAINGUARD #7500-M MONITOR HYDRANT SHALL BE SELF-DRAINING, NON-FREEZING TYPE WITH A \_\_\_\_\_' DEPTH OF BURY. HYDRANT SHALL BE FURNISHED WITH A 4" OR 6" MJ INLET CONNECTION, A NON-TURNING OPERATING ROD, AND SHALL OPEN TO THE LEFT. OUTLET SHALL BE 4" CAM AND GROOVE STAINLESS STEEL QUICK DISCONNECT FITTING, UPON WHICH A WASHDOWN MONITOR CAN BE CONNECTED. OUTLET COUPLING WILL EXTEND ABOVE GROUND A MINIMUM OF 12". RISER PIPE LENGTH BASED ON SPECIFIED DISTANCE FROM GROUND AND SHOULD BE SPECIFIED AT TIME OF PURCHASE.

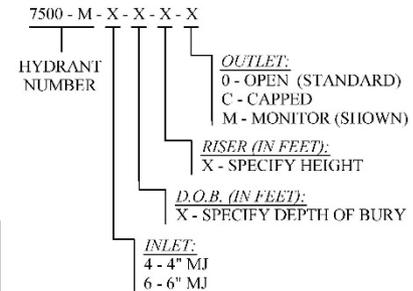
ALL WATER FLOW SHALL PASS THRU A 4" STEEL PIPE AND CAST IRON WATERWAY. THE OPERATING DRIVE MECHANISM SHALL RAISE AND LOWER A PLUNGER TO CONTROL THE FLOW OF WATER AND SHALL BE SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING OR REPLACEMENT NEEDED. SAID OPERATING DRIVE SHALL OPERATE WITH A STANDARD 2" GATE VALVE WRENCH. WHEN OPEN THE FLOW OF WATER SHALL BE UNOBSTRUCTED AND THE DRAIN HOLE SHALL BE COVERED.

HYDRANT SHALL BE SET IN 4 CUBIC FEET OF CRUSHED STONE TO ALLOW FOR PROPER DRAINAGE OF HYDRANT. RECOMMENDATIONS OF THE AWWA SHOULD BE FOLLOWED WHEN INSTALLING THE HYDRANT.

WHEN USED THE MONITOR SHALL BE CONSTRUCTED FROM LIGHT WEIGHT CASE ALUMINUM WITH A FULLY VANED 3.375" WATERWAY PRODUCING A FRICTION LOSS FACTOR OF 6 PSI AT 1250 GPM. MONITOR SHALL BE CAPABLE OF 360° HORIZONTAL ROTATION AND ALLOW FOR VERTICAL POSITIONING WITH STOP LOCATIONS AT 90° ABOVE AND 45° BELOW THE HORIZONTAL PLANE. THE OUTLET OF THE MONITOR SHALL INCLUDE A 2-1/2" MINI STREAM SHAPER AND AN ALUMINUM NOZZLE TIP WITH A 2-1/2" FEMALE INLET AND A 1-3/8" OUTLET.

THE MAINGUARD #7500-M MONITOR HYDRANT AS MANUFACTURED BY THE KUPFERLE FOUNDRY, ST. LOUIS MO. 63102 OR APPROVED EQUAL.

### HYDRANT ASSEMBLY NUMBER GUIDE:



ITEM	ITEM / DESCRIPTION	NOTES
1	TOP CAP	
2	2" SQUARE OPERATING NUT	
3	4" FIP OUTLET	WITH MONITOR
4	4" COUPLING	
5	4" STEEL PIPE	
6	INLET VALVE BODY	
7	DRAIN HOLE	
8	HYDRANT SHUT-OFF VALVE	BY OTHERS
9	CRUSHED ROCK	BY OTHERS
10	VALVE BOX	BY OTHERS
11	SOLID CONCRETE BLOCK	BY OTHERS

**SIDE VIEW**

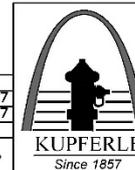
Scale: 3/4"=1'-0"

DD/MM/YY	ISSUED FOR ...
DATE	STATUS / REVISION

#7500-M SPEC SHEET

	INITIALS	DATE
DRAWN	SMS	06/02/17
APPROVED	DCL	09/25/17
MODIFIED		

SCALE  
3/4"=1'

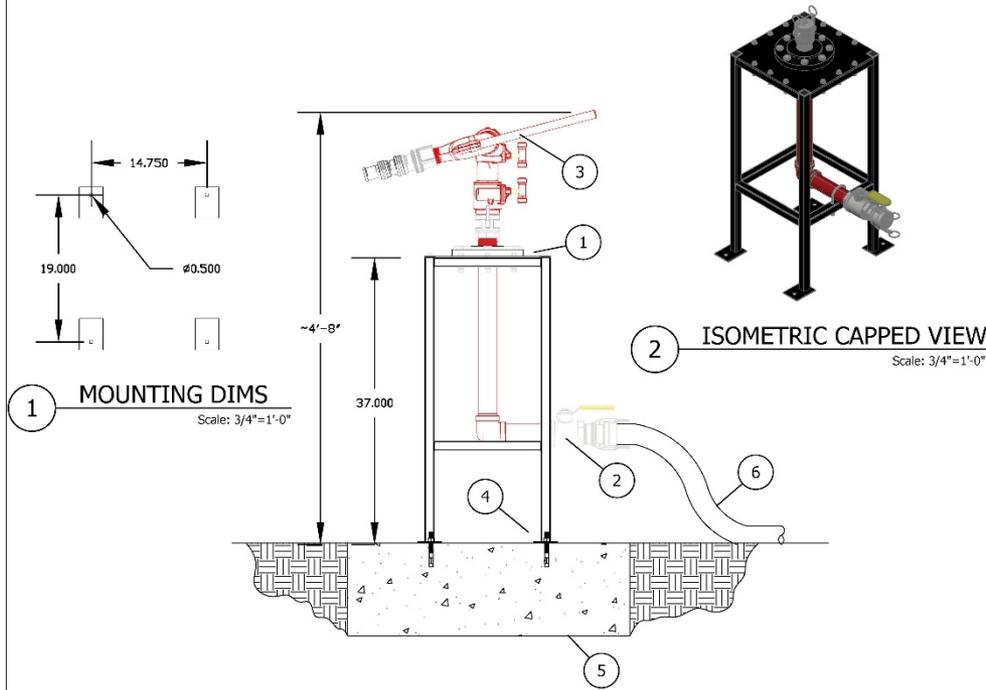


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 1-800-231-3990  
 FAX 314-231-2820  
 www.hydrants.com

SHEET 1 OF 1



# #44MS-2 MOUNTABLE MONITOR STAND SPEC SHEET



MOUNTABLE MONITOR STAND SHALL BE INSTALLED ON A CONCRETE PAD THAT IS AT LEAST   ' x   ' AND   " THICK. STAND SHALL BE ANCHORED TO THE CONCRETE VIA CONCRETE ANCHORS OR LAGS. ANCHORS OR LAGS SHALL BE INSTALLED ACCORDING TO MANUFACTURERS INSTRUCTIONS.

A 2" SIDEWINDER MONITOR MAY BE ATTACHED TO THE TOP OF THE STAND VIA A PAIR OF STAINLESS STEEL QUICK DISCONNECTS. A SUPPLY LINE SHALL BE CONNECTED TO THE STAND VIA ANOTHER PAIR OF STAINLESS STEEL QUICK DISCONNECTS ON THE INLET. A BALL VALVE, LOCATED IMMEDIATELY AFTER THE INLET DISCONNECT SHALL ALLOW FOR FLOW CONTROL AT THE WASH DOWN LOCATION.

WATER MUST BE TURNED OFF AT THE SOURCE AND THE BALL VALVE PLACED IN THE OPEN POSITION BEFORE ANY QUICK DISCONNECTS ARE OPENED.

THE 2" MOUNTABLE MONITOR STAND AS MANUFACTURED BY THE KUPFERLE FOUNDRY, ST. LOUIS MO. 63102 OR APPROVED EQUAL.

ITEM	ITEM / DESCRIPTION	NOTES
1	2" MONITOR STAND	
2	2" BALL VALVE	
3	2" MOUNTABLE MONITOR HYDRANT	
4	CONCRETE ANCHORS/LAGS	BY OTHERS
5	CONCRETE PAD	BY OTHERS
6	2" SUPPLY LINE	BY OTHERS

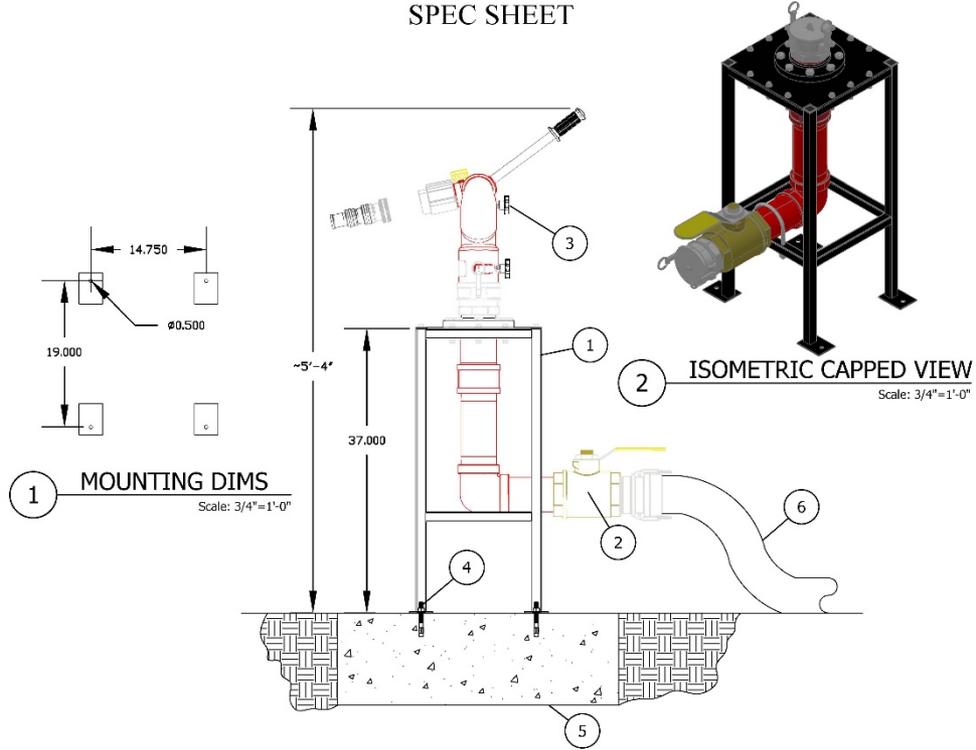
MOUNTABLE MONITOR STAND TO BE INSTALLED AT THE FOLLOWING LOCATIONS:

DISCLAIMER: KUPFERLE'S #44MS HYDRANT AND MOUNTING STAND ARE DESIGNED TO BE USED ON POTABLE WATER SYSTEMS ONLY AND RATED FOR A MAXIMUM PRESSURE OF 250 PSF. PROPER ANCHORING OF THE STAND TO CONCRETE IS SOLELY THE RESPONSIBILITY THE INSTALLER.

DD/MM/YY	ISSUED FOR REFERENCE	#44MS-2 2" MOUNTABLE MONITOR STAND	SCALE 3/4"=1'		2511 NORTH 9TH STREET ST. LOUIS, MO 63102 1-800-231-3990 FAX 314-231-2820 www.hydrants.com
DATE	STATUS / REVISION				



# #44MS-4 MOUNTABLE MONITOR STAND SPEC SHEET



**1 MOUNTING DIMS**  
Scale: 3/4"=1'-0"

**2 ISOMETRIC CAPPED VIEW**  
Scale: 3/4"=1'-0"

MOUNTABLE MONITOR STAND SHALL BE INSTALLED ON A CONCRETE PAD THAT IS AT LEAST 4' x 4' AND 4" THICK. STAND SHALL BE ANCHORED TO THE CONCRETE VIA CONCRETE ANCHORS OR LAGS. ANCHORS OR LAGS SHALL BE INSTALLED ACCORDING TO MANUFACTURERS INSTRUCTIONS.

A 4" VULCAN MONITOR MAY BE ATTACHED TO THE TOP OF THE STAND VIA A PAIR OF STAINLESS STEEL QUICK DISCONNECTS. A SUPPLY LINE SHALL BE CONNECT TO THE STAND VIA ANOTHER PAIR OF STAINLESS STEEL QUICK DISCONNECTS. A BALL VALVE, LOCATED IMMEDIATELY AFTER THE INLET. DISCONNECT SHALL ALLOW FOR FLOW CONTROL AT THE WASH DOWN LOCATION.

WATER MUST BE TURNED OFF AT THE SOURCE AND THE BALL VALVE PLACED IN THE OPEN POSITION BEFORE ANY QUICK DISCONNECTS ARE OPENED.

THE 4" MOUNTABLE MONITOR STAND AS MANUFACTURED BY THE KUPFERLE FOUNDRY, ST. LOUIS MO. 63102 OR APPROVED EQUAL.

ITEM	ITEM / DESCRIPTION	NOTES
1	4" MONITOR STAND	
2	4" BALL VALVE	
3	4" MOUNTABLE MONITOR HYDRANT	
4	CONCRETE ANCHORS/LAGS	BY OTHERS
5	CONCRETE PAD	BY OTHERS
6	4" SUPPLY LINE	BY OTHERS

MOUNTABLE MONITOR STAND TO BE INSTALLED AT THE FOLLOWING LOCATIONS:

DISCLAIMER: KUPFERLE'S #44MS HYDRANT AND MOUNTING STAND ARE DESIGNED TO BE USED ON POTABLE WATER SYSTEMS ONLY AND RATED FOR A MAXIMUM PRESSURE OF 250 PSL. PROPER ANCHORING OF THE STAND TO CONCRETE IS SOLELY THE RESPONSIBILITY THE INSTALLER.

				INITIALS	DATE
				DRAWN SMS	04/06/17
				APPROVED DCL	04/06/17
				MODIFIED XXX	MM/DD/YY
DD/MM/YY	ISSUED FOR REFERENCE	#44MS-4 4" MOUNTABLE MONITOR STAND	SCALE	 <b>KUPFERLE</b> Since 1857	
DATE	STATUS / REVISION		1'=1'		

2511 NORTH 9TH STREET  
ST. LOUIS, MO 63102  
1-800-231-3990  
FAX 314-231-2820  
www.hydrants.com

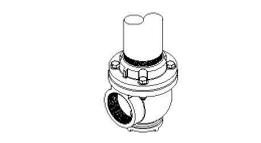


## #2 ECLIPSE POST HYDRANT SPEC SHEET

GENERAL HYDRANT SPECIFICATIONS	
MAXIMUM OPERATING PRESSURE:	150 PSI
INLET MATERIALS:	CAST IRON, BUNA-N, CP9933 BRASS
TOP STOCK MATERIAL:	CAST IRON
ENCLOSURE COLOR:	RED TOP & BLACK INLET
CONTINUOUSLY WETTED MATERIALS:	CAST/GRAY IRON, S.S., S.F.P.S., F.P.P.A., SBR RUBBER, CP9933 BRASS, AND NITRILE
DEPTH OF BURY:	3' STANDARD
WEIGHT:	~110 LBS STANDARD



**A** 2-1/2" FIP INLET  
Scale: 1"=1'



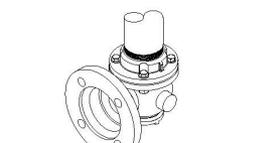
**B** 3" FIP INLET  
Scale: 1"=1'



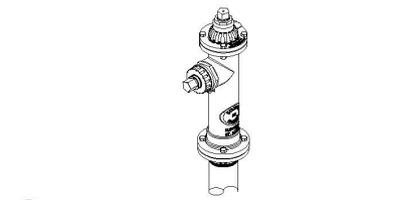
**C** 2" MJ INLET  
Scale: 1"=1'



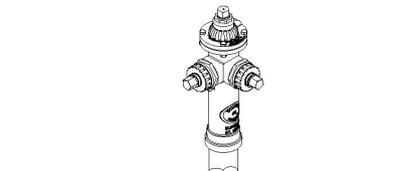
**D** 3" MJ INLET  
Scale: 1"=1'



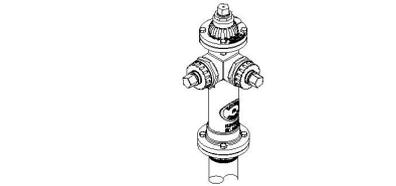
**E** 4" MJ INLET  
Scale: 1"=1'



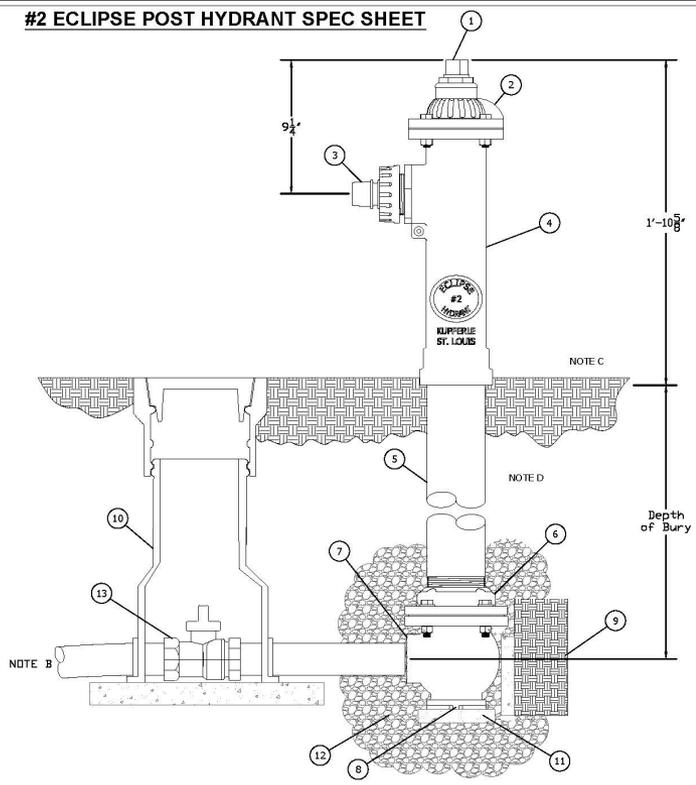
**F** 1 NOZZLE BOLTED FLANGE TOP STOCK  
Scale: 3/4"=1'



**G** 2 NOZZLE TOP STOCK  
Scale: 3/4"=1'



**H** 2 NOZZLE BOLTED FLANGE TOP STOCK  
Scale: 3/4"=1'



**1** #2 STANDARD INSTALL VIEW  
Scale: 3"=1'

Eclipse Product Ordering Guide										
MODEL #	2	1.0	A	A	A	X	X	X	X	
SUBSECTION	1	2	3	4	5	6	7	8	9	10
SUBSECTION DESCRIPTION	MODEL #	OPTIONS	DESCRIPTIONS							
MODEL	1	2	POST HEIGHT							
DEPTH OF BURY	2	0.0	X X = FEET DEPTH OF BURY (ENTER # IN FEET AND INCLUDE INCHES ROUND TO NEAREST 0.5 FEET (MUST BE > 1.0))							
INLET OPTIONS	3	A	2" FIP INLET							
		B	2.5" FIP INLET							
		C	3" FIP INLET							
		D	2" MJ INLET							
		E	3" MJ INLET							
		F	4" MJ INLET							
TOP STOCK OPTIONS	4	A	SINGLE NOZZLE							
		B	SINGLE NOZZLE BOLTED FLANGE							
		C	TWO NOZZLE							
		D	TWO NOZZLE BOLTED FLANGE							
		A	2-1/2" MNST BRASS NOZZLE							
		B	1-1/2" MNST BRASS NOZZLE							
		C	1-1/2" TAPERED STRAIGHT BRASS NOZZLE							
OUTLET OPTIONS	5	D	1-1/2" MNPT (TAPERED) BRASS NOZZLE							
		E	2" MNST BRASS NOZZLE							
		F	2" MNPT STRAIGHT BRASS NOZZLE							
		G	2" MNPT (TAPERED) BRASS NOZZLE							
		H	2-1/2" MNPT (STRAIGHT) BRASS NOZZLE							
		I	2-1/2" MNPT (TAPERED) BRASS NOZZLE							
		J	2" FNPS CAST IRON NOZZLE							
OPERATING ROD MATERIAL	6	X	CALL FOR CUSTOM							
		A	GALVANIZED PIPE							
		B	SOLID STEEL ROD							
		C	S.S. PIPE							
		D	BRASS PIPE							
VANDAL-PROOF OPTIONS	7	X	NONE							
		A	VANDAL-PROOF TOP SCREEN							
		B	VANDAL-PROOF SIDE CAP							
VANDAL-PROOF OPTIONS	8	X	VANDAL-PROOF TOP SCREEN AND SIDE CAP							
		A	VANDAL-PROOF WRENCH							
HANDWHEEL	9	A	NONE							
LOOKING WRENCH	10	X	HANDWHEEL							
		A	NONE							
		X	LOOKING WRENCH							

ITEM	DESCRIPTION	NOTES
1	OPERATING SCREW	
2	TOP CAP	
3	SIDE CAP	
4	TOP STOCK	
5	3-1/2" FBE COATED STEEL PIPE	
6	COUPLING	
7	INLET VALVE BODY	
8	DRAIN HOLE	
9	UNDISTURBED EARTH	BY OTHERS
10	VALVE BOX	BY OTHERS
11	THREE BLOCKS	BY OTHERS
12	CRUSHED ROCK	BY OTHERS
13	HYDRANT SHUT-OFF VALVE	BY OTHERS

Eclipse Post Hydrant shall be installed in the following location(s): \_\_\_\_\_

#2 Eclipse post hydrant shall be self-draining, non-freezing, compression type with 2-3/16" main valve opening. Inlet connection shall be 2" FIP standard. Outlet shall be 2-1/2" NST standard. Standard depth of bury is 3'. All water flow shall pass through a 3-1/2" FBE coated steel pipe and cast iron top stock water way. All working parts shall be serviceable from above ground with no digging or replacement needed. Hydrant shall be set in 4 cubic feet of crushed stone to allow for proper drainage of hydrant. Recommendation of the AWWA should be followed when installing the hydrant.

Unit model # shall be 2-X-X-X-X-X-X-X-X-X-X as specified in the product ordering guide as manufactured by Kupferle Foundry Company, St. Louis MO, or approved equal.

NOTES	
A	PIPING BY OTHERS
B	FLUSH LINE BEFORE INSTALLATION OF THE HYDRANT
C	GROUND LINE MAY VARY
D	IN CORROSIIVE SOLIDS THE BURIED PIPE SHOULD BE PREPPED FOR ADDITIONAL RESISTANCE TO CORROSION. KUPFERLE RECOMMENDS SPRAYING ALL UNDERGROUND PIPING AND FITTINGS WITH AN ANTI-RUST SPRAY TAB, ALLOWING PROPER TIME TO DRY AND WRAPPING THE PARTS.

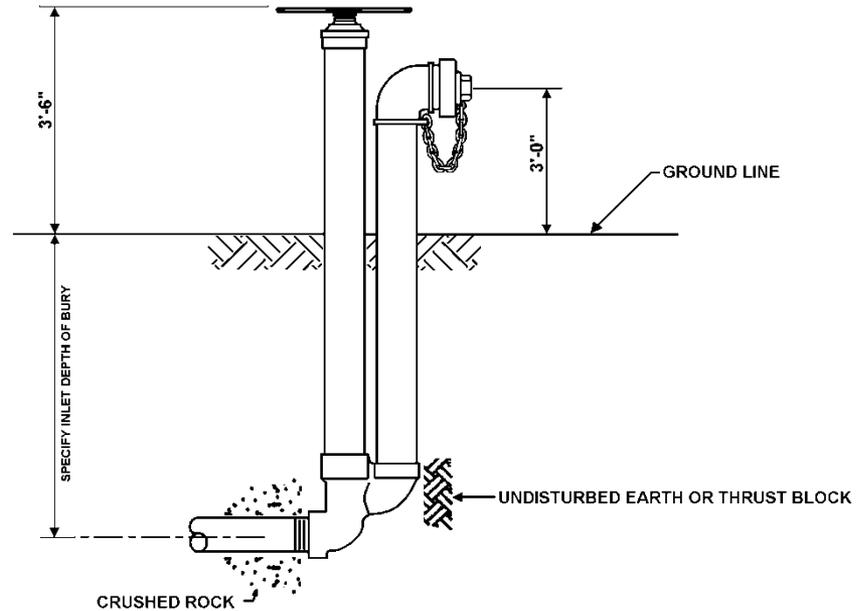
DRAWN	INITIALS	DATE
SMS	XXX	10/03/18
APPROVE D	XXX	XXX
DATE	DATE	DATE
SCALE	SCALE	SCALE
B (11x17)	VARIABLES	VARIES

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G:\ENGINEERING\Mechanical\#2\#2 ECLIPSE Post Hydrant Spec Sheet + Cut Sheet REV0.dwg, 9/18/2020 2:26:34 PM, AutoCAD PDF (Geometric) (Plot Settings) (Sheet) (1 of 1)



## NO. 80WD MAINGUARD HYDRANT

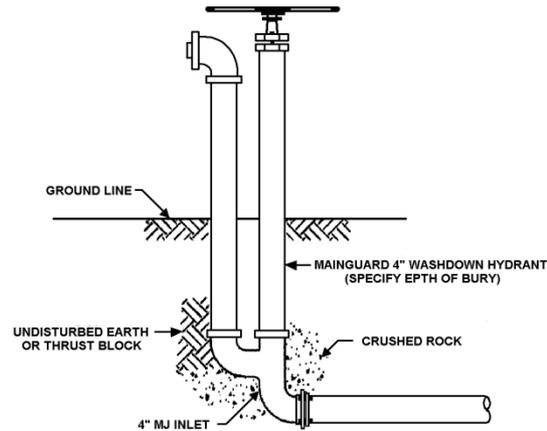


POST HYDRANTS SHALL BE NON-FREEZING, SELF DRAINING TYPE WITH A DEPTH OF BURY OF \_\_\_\_\_. THESE HYDRANTS WILL BE FURNISHED WITH A 2" FIP INLET AND A 2-1/2" NST OUTLET OR SMALLER. HYDRANT SHALL HAVE A NON-TURNING OPERATING ROD AND SHALL OPEN TO THE LEFT. ALL WORKING PARTS SHALL BE BRONZE TO BRONZE DESIGN AND BE SERVICEABLE FROM ABOVE GRADE WITH NO DIGGING. HYDRANTS SHALL BE MANUFACTURED BY KUPFERLE FOUNDRY CO., ST. LOUIS, MO, OR APPROVED EQUAL.



## NO. 8000WD MAINGUARD BLOW-OFF

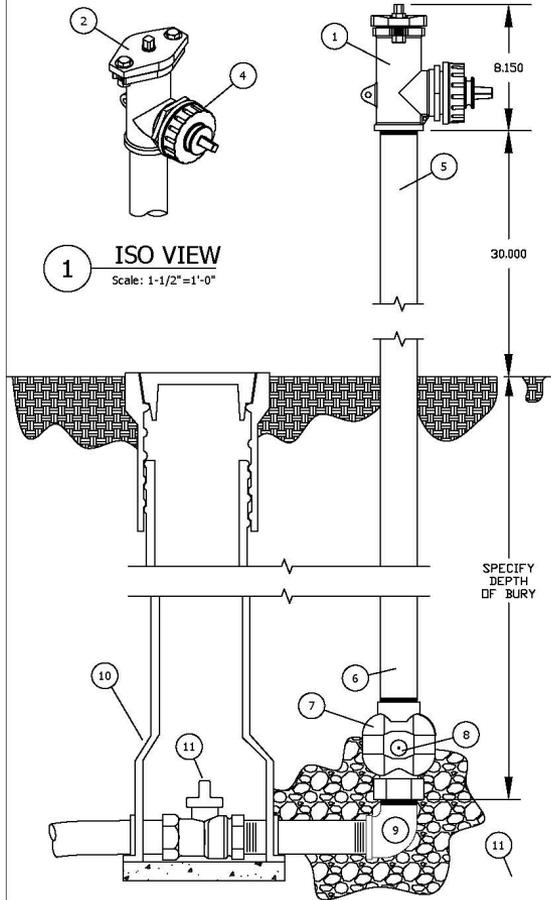
4" ABOVE GROUND WASHDOWN HYDRANT



HYDRANT SHALL BE NON-FREEZING, SELF DRAINING TYPE WITH A \_\_\_' \_\_\_" DEPTH OF BURY. HYDRANT WILL BE FURNISHED WITH A 4" MJ INLET, A NON-TURNING OPERATING ROD AND SHALL OPEN TO THE LEFT. ALL OF THE WORKING PARTS SHALL BE BRASS TO BRASS DESIGN, AND BE SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING. UNITS SHALL OPERATE WITH A STANDARD 10" HANDWHEEL. WHEN OPEN, VALVE SHALL BE 100 % UNOBSRUCTED AND DRAIN HOLE SHALL BE COVERED. THE OUTLET SHALL BE 4" FIP WITH PLUG AND EXTENDED A MINIMUM OF 12" ABOVE THE GROUND, AS MANUFACTURED BY KUPFERLE FOUNDRY CO., ST. LOUIS, MO. MODEL #8000WD OR APPROVED EQUAL.



# TF-200 TRUFLO POST HYDRANT SPEC SHEET



HYDRANT SHALL BE \_\_\_\_\_' BURY, WITH (2" MJ SIDE, 2" FIP SIDE, OR 2" FIP VERTICAL) INLET AND (ANY SIZE UP TO 2-1/2" NST) NOZZLE OUTLET.

HYDRANT SHALL BE NON-FREEZING AND SELF DRAINING. HYDRANT SHALL BE OPERATED BY TURNING A TOP-MOUNTED  $\frac{9}{16}$ " SQUARE OPERATING NUT COUNTERCLOCKWISE TO OPEN AND CLOCKWISE TO CLOSE. HYDRANT MUST SEAL THE DRAIN OUTLET IN ALL POSITIONS FROM 1/4-OPEN TO FULLY OPEN. ALL INTERNAL WORKING PARTS, THE INLET, AND THE OUTLET SHALL BE BRASS WITH THE VALVE BEING PVC. ALL WORKING PARTS SHALL BE SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING REQUIRED. ALL WEAR PARTS (O-RINGS AND VALVE SEAT) SHALL BE OF COMMONLY AVAILABLE DIMENSIONS AND MATERIALS, NONE MAY BE VENDOR UNIQUE DESIGN.

**(ANTI-VANDAL CAP OPTION:** AN ANTI-VANDAL LOCKING MECHANISM SHALL BE PROVIDED, WHICH SHALL ALSO SERVE AS AN OPERATING WRENCH.)

**("TRAFFIC" OPTION:** HYDRANT SHALL BE DESIGNED TO BREAK AWAY AT GRADE LEVEL IN EVENT OF A SIGNIFICANT IMPACT. OUTLET NOZZLE SHALL BE ABLE TO POINT IN ANY OF 8 RADIAL DIRECTIONS. HYDRANT SHALL BE DESIGNED TO ACCEPT FIELD-INSTALLED GRADE-CHANGE MODIFICATIONS.)

HYDRANT SHALL BE MODEL TF-200 AS MANUFACTURED BY THE KUPFERLE FOUNDRY, ST. LOUIS MO. 63102 OR APPROVED EQUAL.

TF-200 HYDRANT TO BE INSTALLED AT THE FOLLOWING LOCATIONS:

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ITEM	ITEM / DESCRIPTION	NOTES
1	HEADSTOCK	
2	TOP CAP	
3	9/16" OPERATING NUT	
4	OUTLET	2-1/2" NST w/ SIDE CAP SHOWN
5	2" BARREL PIPE	STEEL, OTHER OPTIONS AVAILABLE
6	1/2" STEEL OPERATING ROD	NOT SHOWN, OTHER OPTIONS AVAILABLE
7	INLET VALVE BODY	2" FIP VERTICAL INLET SHOWN
8	DRAIN HOLE	
9	STREET ELBOW	BY OTHERS
10	VALVE BOX	BY OTHERS
11	HYDRANT SHUT-OFF VALVE	BY OTHERS
	CRUSHED ROCK	BY OTHERS

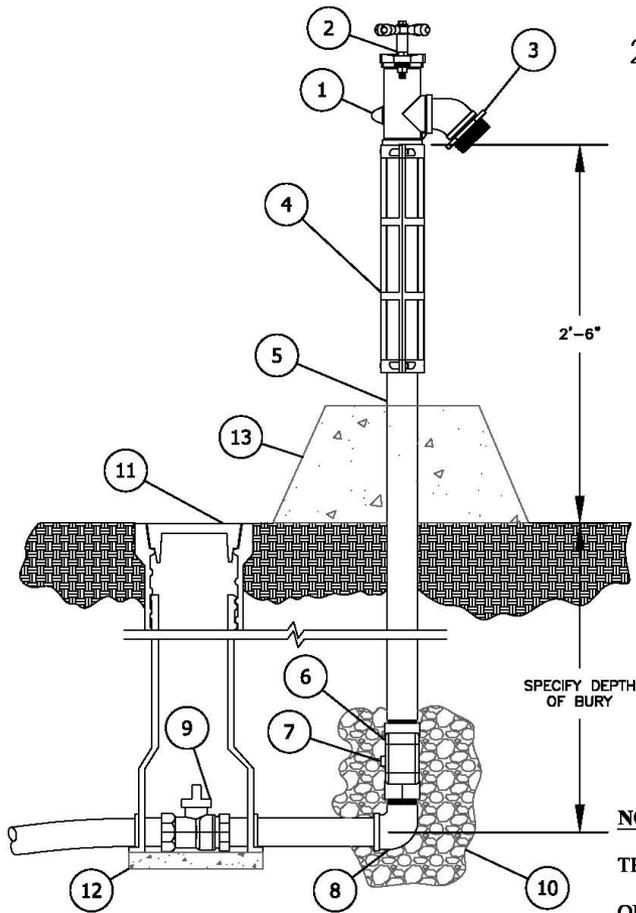
		INITIALS	DATE	
		DCL	2/12/18	
		DCL	2/12/18	
		MODIFIED		
DD/MM/YY	ISSUED FOR REFERENCE	TF-200 TRUFLO POST HYDRANT		SCALE
DATE	STATUS / REVISION			1-1/2"=1'

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**KUPFERLE**  
Since 1857



# TRUFLO TF300 2" POST HYDRANT SPEC SHEET



TRUFLO TF300 YARD HYDRANT SHALL BE SELF-DRAINING, NON-FREEZING TYPE WITH A \_\_\_\_\_' DEPTH OF BURY. HYDRANT SHALL BE FURNISHED WITH A 1-1/4", 1-1/2" OR 2" VERTICAL OR HORIZONTAL INLET CONNECTION, A NON-TURNING OPERATING ROD AND SHALL OPEN TO THE LEFT. OUTLET SHALL BE (1", 1-1/2", 2", OR 2-1/2") MNPT OR (1-1/4", 1-1/2", 2" OR 2-1/2") NPT OUTLET EXTEND 30" ABOVE THE GROUND.

ALL WATER FLOW SHALL PASS THRU A 2" STEEL PIPE AND CAST IRON TOP STOCK WATERWAY. THE OPERATING DRIVE MECHANISM SHALL RAISE AND LOWER A PLUNGER TO CONTROL THE FLOW OF WATER AND SHALL BE SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING OR REPLACEMENT NEEDED. SAID OPERATING DRIVE SHALL OPERATE WITH 4 SPOKE BALL WHEEL HANDLE (AS SHOWN) OR A 10" HAND WHEEL ON A 9/16" SQUARE OPERATING NUT. WHEN OPEN THE FLOW OF WATER SHALL BE UNOBSTRUCTED AND THE DRAIN HOLE SHALL BE COVERED.

HYDRANT SHALL BE SET IN 4 CUBIC FEET OF CRUSHED STONE TO ALLOW FOR PROPER DRAINAGE OF HYDRANT. RECOMMENDATION OF THE AWWA SHOULD BE FOLLOWED WHEN INSTALLING THE HYDRANT.

THE TRUFLO TF300 YARD HYDRANT AS MANUFACTURED BY THE KUPFERLE FOUNDRY, ST. LOUIS MO. 63102 OR APPROVED EQUAL.

ITEM	ITEM / DESCRIPTION	
1	TOP CAP	
2	SQUARE OPERATING NUT	
3	OUTLET	2-1/2" MNST SHOWN
4	CASING GUARD	
5	2" STEEL PIPE	
6	INLET VALVE BODY	
7	DRAIN HOLE	
8	STEEL ELBOW	BY OTHERS
9	HYDRANT SHUT-OFF VALVE	BY OTHERS
10	CRUSHED ROCK	BY OTHERS
11	VALVE BOX	BY OTHERS
12	SOLID CONCRETE BLOCK	BY OTHERS
13	SOLID CONCRETE BASE	RECOMMENDED

**NOTES:**

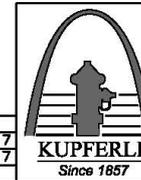
THE TF300 HYDRANT

OUTLET SHALL BE: \_\_\_\_\_

TRUFLO TF300 POST HYDRANT SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

DATE	STATUS / REVISION

SHEET	OF	SCALE: 1"=1'	DRAWN	INITIALS	DATE
TF300 POST HYDRANT SPEC SHEET			APPROVED	SMS	06/01/17
			MODIFIED	DCL	06/01/17

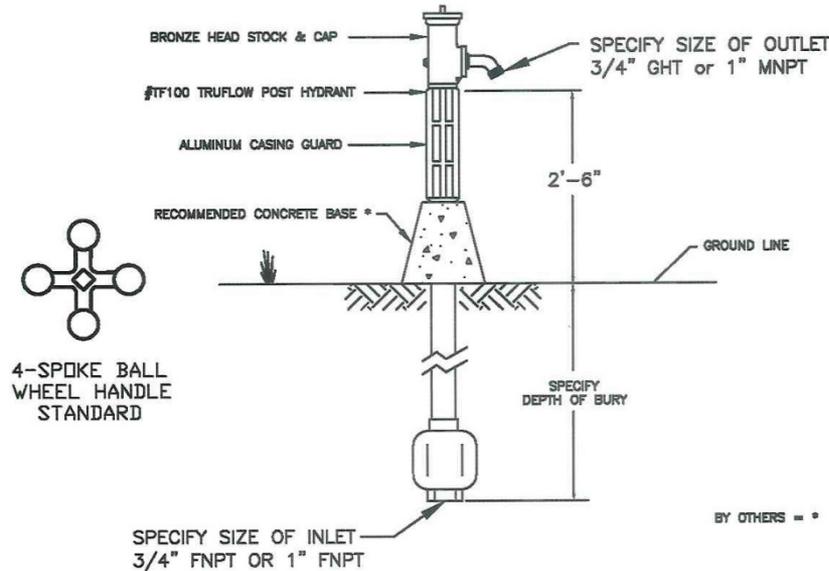


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# TF100 TRUFLO POST HYDRANT MODERN CASING GUARD



Hydrant shall be \_\_\_\_ ' Depth of Bury with a 3/4" or 1" FNPT vertical inlet and a 3/4" GHT or 1" MNPT outlet.

Hydrant shall be non-freezing, self draining. Hydrant shall have a bronze head and cap, aluminum casing guard, a (galvanized steel (STD), stainless steel or brass) exterior casing pipe, a (brass (STD), stainless steel or galvanized steel) non-turning interior operating rod and bronze valve body. Hydrant shall be operated by 9/16" square operating nut with a 4-spoke ball wheel operating handle.

Hydrant must seal the drain outlet in all positions from 1/4 closed to fully open. All internal; working part shall be removable from above ground with no digging required.

Hydrant shall be set in 4 cubic feet of crushed stone to allow for proper drainage of the hydrant, Recommendations of the AWWA should be followed for installation of the hydrants.

Hydrant shall be Model TF100 TruFlow Post Hydrant as manufactured by the Kuperle Foundry Company, St. Louis, MO 63102 or approved equal.

				DRAWN G.S.	 <b>THE KUPFERLE FOUNDRY COMPANY</b> <small>Since 1837</small> 2511 NORTH 9TH STREET, ST. LOUIS, MO 63102 314-231-8738 800-231-3990 FAX 314-231-2820 <a href="http://www.hydrants.com">http://www.hydrants.com</a>
				APPROVED	
				DATE	
				MAT'L	
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DATE	REVISION	PART NO. TF100 TRUFLO YARD HYDRANT			

