

# 'WST' WATER METERS

**MORE ACCURATE OVER  
A WIDE RANGE OF FLOWS**



## PRODUCT ADVANTAGES

- Impeller is located in the center of the flow allowing for accurate measurements ( $\pm 2\%$ ) over a wide range of flows - including low flows.
- Double magnetic transmission (repelling magnets) drives the register enabling the meter to handle high loads of sand since only the impeller is in contact with the water.
- Transmission gears are located in a sealed, dry compartment which has no contact with the water.
- Balanced impeller with equal load on front and rear gears prevents bearing wear and maintains high accuracy even after years of operation.
- Registers are stainless steel encapsulated and guaranteed not to accumulate moisture or fog.
- 3" to 8" Water Meters have built-in straightening vanes which reduce the length of straight pipe required before and after the meter.
- Wide selection of register options.

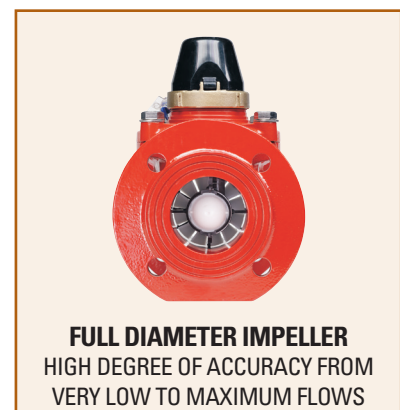
## APPLICATIONS

- For main supply lines in agriculture applications

## SPECIFICATIONS

- Sizes: 3", 4", 6", 8", 10" and 12"
- Maximum Working Pressure: 230 psi
- Maximum Liquid Temperature: 140° F
- Body Material: Cast Iron with Polyester Coating
- Connections: Flange
- Register Options: Reed Switch, Photo Diode or ER Digital
- 3", 4", 6" and 8" Reed Switch Register Pulse Outputs: 10, 32.6 or 100
- 10" and 12" Reed Switch Register Pulse Outputs: 100 or 325.9
- 3", 4", 6" and 8" Photo Diode Register Pulse Outputs: 0.1172, 0.1097, 0.2027 or 0.378
- 10" and 12" Photo Diode Register Pulse Outputs: 4.505 or 6.73
- All Sizes ER Digital Register Pulse Outputs:  
Gallons - .1, 1, 10, 100, 1000  
Acre Feet - .0001, .001, .01, .1
- 3", 4", 6" and 8" Straight Pipe Installation Requirement:  
5 x D\* upstream and 2 x D downstream
- 8" and 10" Straight Pipe Installation Requirement:  
10 x D upstream and 5 x D downstream

\*D = meter size

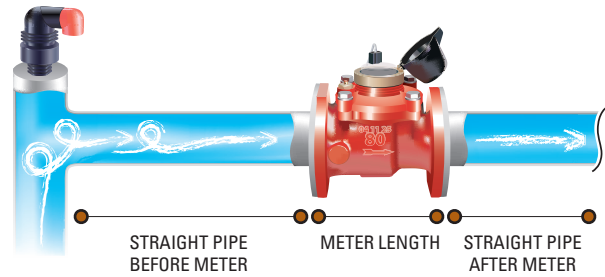


**FULL DIAMETER IMPELLER**  
HIGH DEGREE OF ACCURACY FROM  
VERY LOW TO MAXIMUM FLOWS

## 'WST' WATER METERS

### STRAIGHT PIPE INSTALLATION REQUIREMENT

METER SIZE	UPSTREAM DISTANCE	DOWNSTREAM DISTANCE	METER LENGTH	TOTAL REQUIREMENT
<b>5 D X 2 D</b>				
3"	15"	6"	9"	30"
4"	20"	8"	10"	38"
6"	30"	12"	12"	54"
8"	40"	16"	14"	70"
<b>10 D X 5 D</b>				
10"	100"	50"	18"	168"
12"	120"	60"	20"	200"



### INSTALLATION REQUIREMENTS

- The meter may be installed in any position. For non-horizontal positions, the flow should be upwards.
- Straight pipe installation requirement for 3" to 8" meters: 5 x diameter pipe upstream (before the meter) and 2 x diameter pipe downstream (after the meter)
- Straight pipe installation requirement for 10" and 12" meters: 10 x diameter pipe upstream (before the meter) and 5 x diameter pipe downstream (after the meter)
- Prior to installation of the meter, the pipeline should be thoroughly flushed
- Meter must be installed so that the pipe will be full of water at all times during metering
- To eliminate air in the system, continuous acting air vents of proper size and type are required

### REED SWITCH REGISTERS

METER SIZE	REGISTER TOTALIZER	VOLUME UNIT	PULSE OUTPUT (GALS/PULSE)	POINTER RESOLUTION		
				POINTER 1	POINTER 2	POINTER 3
3" & 4"	GALLON	GALLON x 1,000	10	x 1.0 GALLON	x 10 GALLON	x 100 GALLON
3" & 4"	ACRE FEET	ACRE FEET x 1.00	32.6	x 0.00001	x 0.0001	x 0.001
6" & 8"	GALLON	GALLON x 10,000	100	x 10 GALLON	x 100 GALLON	x 1,000 GALLON
6" & 8"	ACRE FEET	ACRE FEET x 1.00	32.6	x 0.000001	x 0.0001	x 0.001
10" & 12"	GALLON	GALLON x 10,000	100	x 10 GALLON	x 100 GALLON	x 1,000 GALLON
10" & 12"	ACRE FEET	ACRE FEET x 325.9	325.9	x 0.0001	x 0.001	x 0.01



### PHOTO DIODE REGISTERS

METER SIZE	REGISTER TOTALIZER	VOLUME UNIT	PULSE OUTPUT (GALS/PULSE)	POINTER RESOLUTION		
				POINTER 1	POINTER 2	POINTER 3
3"	GALLON	GALLON x 1,000	0.1172	x 1.0 GALLON	x 10 GALLON	x 100 GALLON
4"	GALLON	GALLON x 1,000	0.1097	x 1.0 GALLON	x 10 GALLON	x 100 GALLON
6"	GALLON	GALLON x 10,000	0.2027	x 10 GALLON	x 100 GALLON	x 1,000 GALLON
8"	GALLON	GALLON x 10,000	0.378	x 10 GALLON	x 100 GALLON	x 1,000 GALLON
10"	GALLON	GALLON x 10,000	4.505	x 10 GALLON	x 100 GALLON	x 1,000 GALLON
12"	GALLON	GALLON x 10,000	6.73	x 10 GALLON	x 100 GALLON	x 1,000 GALLON

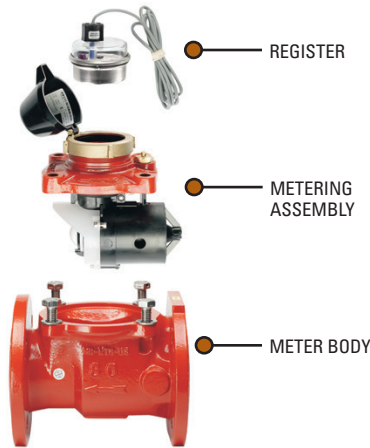


### ELECTRONIC (ER) DIGITAL REGISTERS

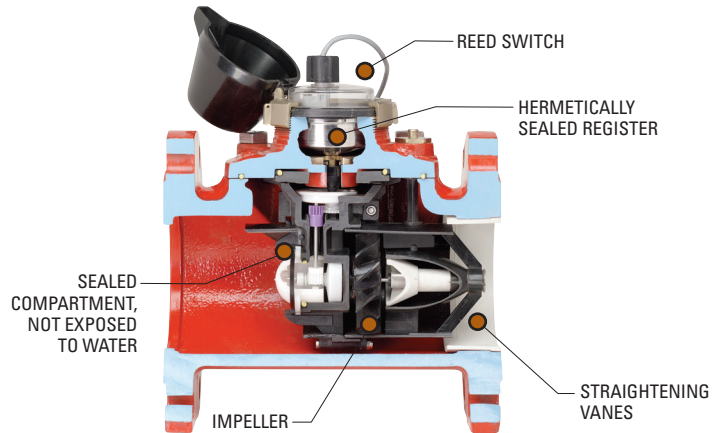
METER SIZE	REGISTER TOTALIZER	PULSE OUTPUT (GALS/PULSE)	FLOW RATE UNITS
3" TO 8"	GALLON	.1, 1, 10, 100, 1000	GPM
3" TO 8"	ACRE FEET	.0001, .001, .01, .1	GPM
10" & 12"	GALLON	.1, 1, 10, 100, 1000	GPM
10" & 12"	ACRE FEET	.0001, .001, .01, .1	GPM



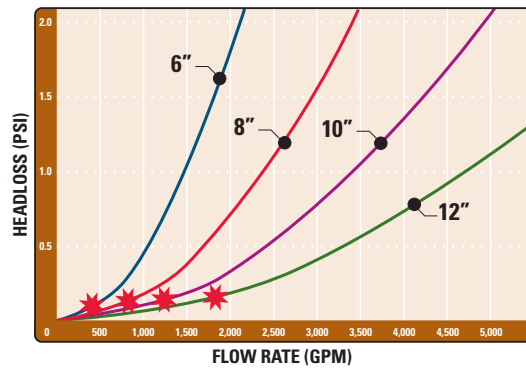
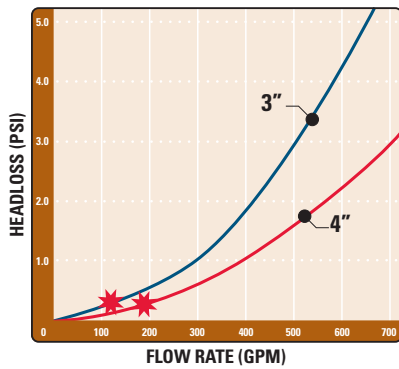
**THREE COMPONENTS FOR QUICK MAINTENANCE**



**'WST' WATER METER CUT-AWAY VIEW**



**'WST' WATER METERS HEADLOSS CHARTS**



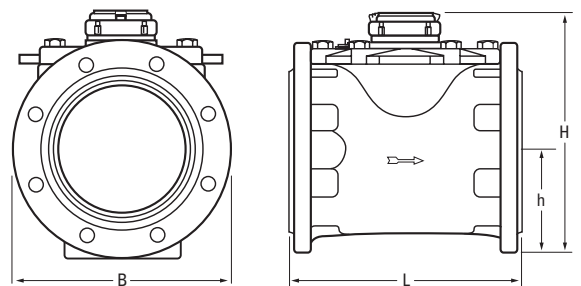
★ FLOW RATE @ 5 FT./SEC.  
 3" - 120 GPM  
 4" - 195 GPM  
 6" - 440 GPM  
 8" - 783 GPM  
 10" - 1,223 GPM  
 12" - 1,762 GPM

**PERFORMANCE DATA**

METER SIZE	LOWEST FLOW RATE +/- 5% ACCURACY	LOWEST FLOW RATE +/- 2% ACCURACY	NOMINAL FLOW RATE +/- 2% ACCURACY	MAXIMUM FLOW RATE +/- 2% ACCURACY
3"	2 GPM	4 GPM	528 GPM	660 GPM
4"	4 GPM	6 GPM	1,013 GPM	1,266 GPM
6"	11 GPM	15 GPM	1,145 GPM	1,431 GPM
8"	22 GPM	38 GPM	1,980 GPM	2,475 GPM
10"	44 GPM	44 GPM	3,300 GPM	4,125 GPM
12"	51 GPM	51 GPM	4,400 GPM	5,500 GPM

**DIMENSIONS & WEIGHT**

METER SIZE	H HEIGHT	h HEIGHT	L LENGTH	B WIDTH	WEIGHT (LBS.)
3"	9 1/4"	3 1/2"	9"	7 3/4"	34
4"	9 3/4"	4 1/4"	9 3/4"	7 3/4"	42
6"	12 1/4"	5"	11 3/4"	11 1/4"	77
8"	13 1/4"	6 1/4"	13 3/4"	13 1/4"	103
10"	17 1/4"	10 1/4"	17 3/4"	16"	165
12"	18 1/4"	13"	19 3/4"	18 1/4"	209



## 'WST' WATER METERS

### ORDERING INFORMATION - REED SWITCH AND PHOTO DIODE REGISTERS

MODEL NUMBER	METER SIZE	REGISTER TYPE	GALLONS PER PULSE
36WST3F	3"	REED SWITCH/GALLON	10
36WST3F-AF		REED SWITCH/ACRE FEET	32.6
36WST3F-1172		PHOTO DIODE	0.1172
36WST4F	4"	REED SWITCH/GALLON	10
36WST4F-AF		REED SWITCH/ACRE FEET	32.6
36WST4F-1097		PHOTO DIODE	0.1097
36WST6F	6"	REED SWITCH/GALLON	100
36WST63F-AF		REED SWITCH/ACRE FEET	32.6
36WST6F-2027		PHOTO DIODE	0.2027
36WST8F	8"	REED SWITCH/GALLON	100
36WST8F-AF		REED SWITCH/ACRE FEET	32.6
36WST8F-.378		PHOTO DIODE	0.378
36WST10F	10"	REED SWITCH/GALLON	100
36WST10F-AF		REED SWITCH/ACRE FEET	325.9
36WST10FP4.505		PHOTO DIODE	4.505
36WST12F	12"	REED SWITCH/GALLON	100
36WST12F-AF		REED SWITCH/ACRE FEET	325.9
36WST12F-PH6.73		PHOTO DIODE	6.73



### ORDERING INFORMATION - ER DIGITAL REGISTERS

#### 36 MODEL SIZE REGISTER VOLUME FLOW RATE OUTPUT 1 OUTPUT 2 DIRECTION

MODEL	SIZE	REGISTER	VOLUME	FLOW RATE	OUTPUT 1 AND OUTPUT 2 *	FLOW DIRECTION
WST	3F = 3"	ER = ER DIGITAL REGISTER	1 = GALLONS	1 = GPM	A = NO OUTPUT	F = FORWARD
	4F = 4"		2 = ACRE FEET		C = .1 GALLON PER PULSE	R = REVERSE
	6F = 6"	EM = ER DIGITAL REGISTER W/OUTPUT MODULE		D = 1 GALLON PER PULSE	A = ALTERNATING	
	8F = 8"		E = 10 GALLONS PER PULSE	N = NET		
	10F = 10"		F = 100 GALLONS PER PULSE			
	12F = 12"		G = 1000 GALLONS PER PULSE			
			H = 0.0001 ACRE FT PER PULSE			
			I = 0.001 ACRE FT PER PULSE			
			J = 0.01 ACRE FT PER PULSE			
			K = 0.1 ACRE FT PER PULSE			

#### ORDERING EXAMPLE:

#### 36WST10FER11EEF

10" WST Series Water Meter, ER Register, Volume in Gallons, Flow Rate in Gallons per Minute, Pulse Output 1 is 10 Gallons per Pulse, Pulse Output 2 is 10 Gallons per Pulse, Forward Flow Direction

\* Pulse rate is based on volume units. If volume is in Acre Feet and Option D is chosen for Output 1 or 2, it will result in 1 pulse every acre foot of water that passes through the meter. To convert Acre Feet to Gallons per Pulse, multiply by 325,850.

#### INDUSTRY'S LONGEST WARRANTY

Netafim stands behind our water meters with an unprecedented warranty - the industry's longest - three (3) years on the metering components (register and metering assembly) and five (5) years on the meter body.



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