

TOTALPAC® X Wet description

The **TOTALPAC®X** Wet integrated system consists of an integrated wet type sprinkler riser assembly with excess preëssure pump, totally pre-assembled, pre-wired and factory tested. All electrical and mechanical components of the system are contained in one single unit

Standard wet Pipe systems are built around the Viking trim Alarm Check Valve Model J-1. The valves are rated up to a maximum of 250 psi WWP (1724 kPa) max and are available in the following diameters:

3" (100 mm) 4" (100 mm) 6" (150 mm)

Standard features

- NEMA 3 or NEMA 4 construction
- Factory assembled and tested under ISO-9001 standards
- Prewired to a terminal block
- Easy and compact installation
- Viking conventional trim rated at 250 psi (1724 kPa)
- Galvanized trim piping
- Serial number for easy reference
- Wide door for easy access
- Quarter turn door latches
- Lockable door to protect against tampering
- Lifting lugs provided for safe and easy handling
- Corrosion resistant paint finish
- Water supply and drain through the bottom center of the unit to avoid freeze-up potential
- Single drain connection

Cabinet

NEMA 3

Enclosures constructed for either indoor or outdoor use to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (falling dirt and windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow); and that will be undamaged by the external formation of ice on the enclosure.

NEMA 4

Enclosures constructed for either indoor or outdoor use to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (falling dirt and windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, and hose directed water); and that will be undamaged by the external formation of ice on the enclosure.

NEMA 3X

Enclosures constructed for either indoor or outdoor use to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (falling dirt and windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow); that provides an additional level of protection against corrosion and that will be undamaged by the external formation of ice on the enclosure.

NEMA 4X

Enclosures constructed for either indoor or outdoor use to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, and hose directed water); that provides an additional level of protection against corrosion; and that will be undamaged by the external formation of ice on the enclosure.

COMPARISON OF SPECIFIC NON-HAZARDOUS APPLICATIONS

Provide a degree of protection against the following environmental conditions	Type of enclosure			
	3 ^a	3X ^a	4	4X
Incidental contact with enclosed equipment	•	•	•	•
Rain, snow and sleet	•	•	•	•
Hose down and splashing water			•	•
Corrosive agents		•		•
Ingress of solid foreign object (circulating or setting airborne dust, lint, fibers, and flyings) ^b			•	•
Ingress of solid foreign objects (winblown dust, lint, fibers, and flyings) ^b	•	•	•	•

^a : these cabinet may be ventilated.

^b : these fibers and flyings are non hazardous materials and are not considered class III type ignitable fibers or combustible flyings.

Sequence of operation

The activation of at least one automatic sprinkler head is necessary to cause the water discharge.

Systems hydraulic limitations

WARNING The information contained herewith is for estimation and evaluation purposes only. Its use remains the responsibility of the designer.

Designers should refer to the appropriate NFPA Standards and any other applicable codes for their final design. Also refer to FireFlex Systems Inc. appropriate user manuals and to manufacturer's data sheets for additional details.

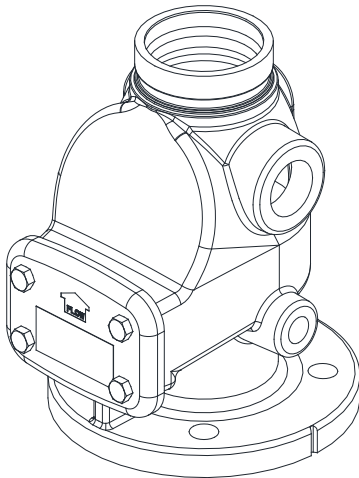
Systems limitations indicated below are nominal flow limitations.

System size (in.)	Usage Range (gpm)	Piping Equivalent Lengths w/o shut off valve	
		(m.)	(ft.)
3	125 - 700	3.1	10
4	250 - 1200	3.9	13
6	750 - 2800	6.1	20

Standard wet pipe system equipment

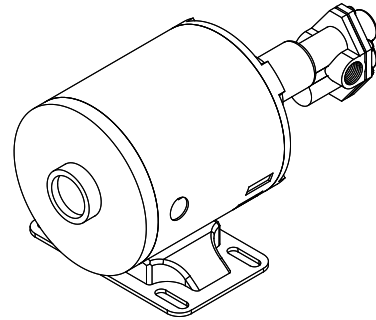
Alarm check valve

The Viking Model J-1 Alarm Check Valve serves as a check valve by trapping pressurized water above the clapper and preventing reverse flow from sprinkler piping. The valve is designed to initiate an alarm during a sustained flow of water (such as the flow required by an open sprinkler) by operating an optional water motor alarm and/or alarm pressure switch. The valve is made suitable for use on variable pressure water supplies by adding the optional retard chamber to the standard trim.



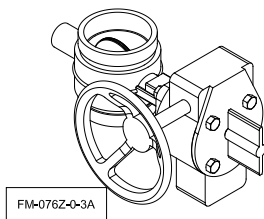
Excess pressure pump

The primary purpose of the Excess Pump is to prevent false alarms due to surges or increases in pressure in the water mains. The Excess Pressure pump introduces pressure on the system side of the alarm check valve and thereby keeps the alarm check valve in a closed position even when surges occur which might otherwise cause a false alarm. For automatic operation, a differential pressure switch is used to turn the pump on or off which should be set to a minimum pressure difference of 30 psi pressure above the valve. When activated, it should be set to increase this pressure to a maximum difference of 45 psi pressure above the valve. The pressure switch should be connected to a point above the clapper of the alarm check valve.



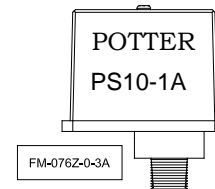
Water supply control valve

The water inlet control valve is a supervised, indicating butterfly valve. Purpose of this valve is to manually shutoff the preaction system.



Alarm pressure switch

The alarm pressure switch monitors the water flow within the sprinkler piping. Should the Deluge Valve clapper opens to allow water to flow into the sprinkler piping. The alarm pressure switch will activate, indicating a water flow signal.



Optional equipment

Heater option

Heater option is recommended where ambient temperatures can drop below 40°F (4.5°C). The cabinet's electric heater temperature cut-out point is set at 50°F (10°C). The heater option is equipped with a low temperature sensor that will activate a supervisory signal when temperature drops below 40°±5°F (4.5°±3°C).

Heater option can be ordered in two supply voltage settings:

- 120Vac-60Hz. 400Watts.
- 220Vac-50Hz. 400Watts.

Insulated enclosure (standard with heater option)

Insulation is made on foam core 2" thick R13 and have a foil-faced sheathing board composed of a uniform closed cell polyisocyanurate foam core bonded on each side to a trimitate foil facer. One side has a foil reflective facer and the other side has a non-reflective foil facer.

Warning: TOTALPAC®X cabinet is rated to provide freeze protection down to a minimum temperature of 14°F (-10°C).

Low temperature sensor (standard with heater option)

The low temperature sensor will close the normally open contact when the temperature drops below 40°F (4,5°C).

The sensor will automatically reset to its normal state when the temperature rises above 40°F (4,5°C).

Light option

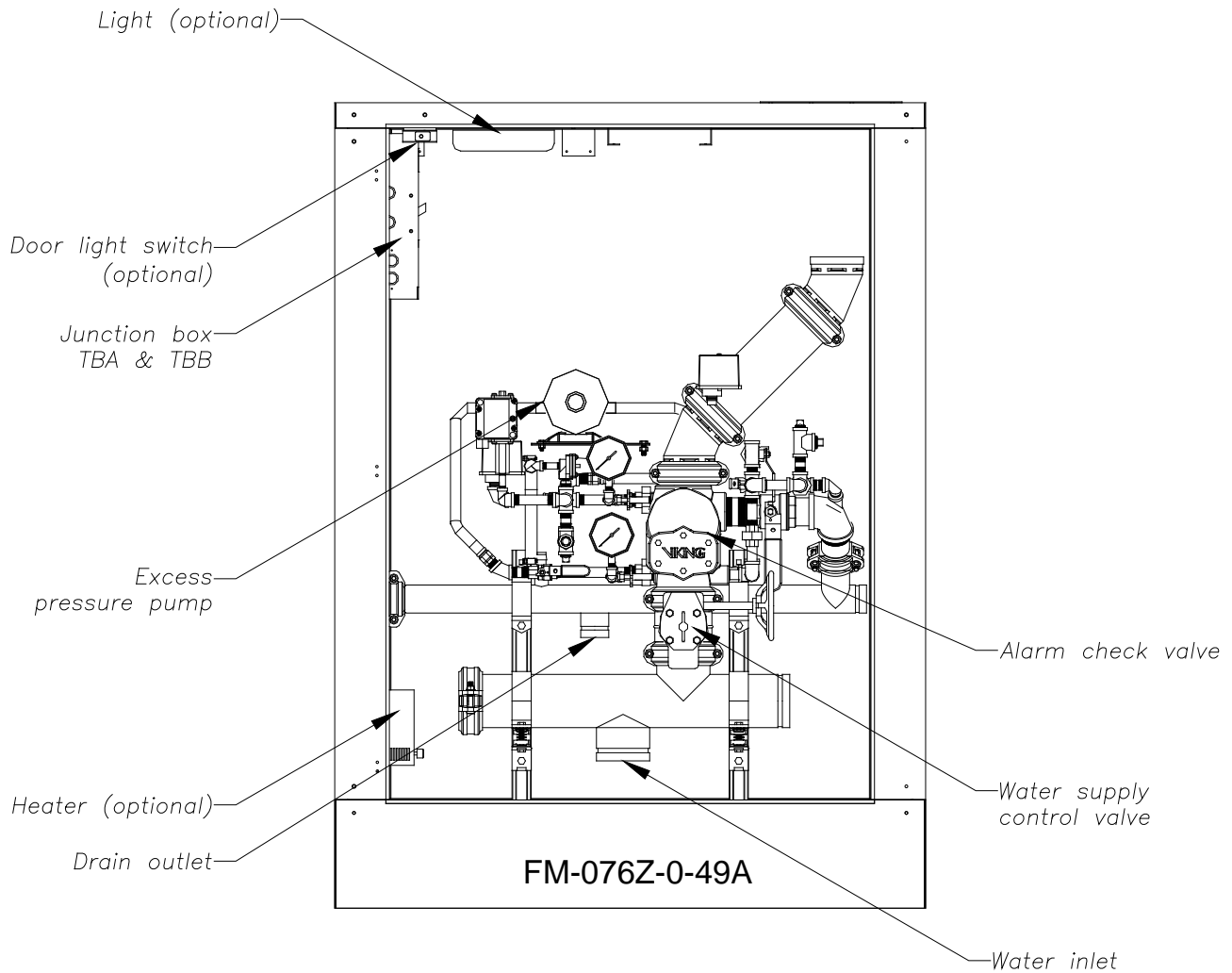
Optional fluorescent enclosure light is available for all cabinet configurations. Remote door switch activates the light when the door is opened.

Light option can be ordered in two supply voltage settings:

- 120Vac-60Hz.
- 220Vac-50Hz.

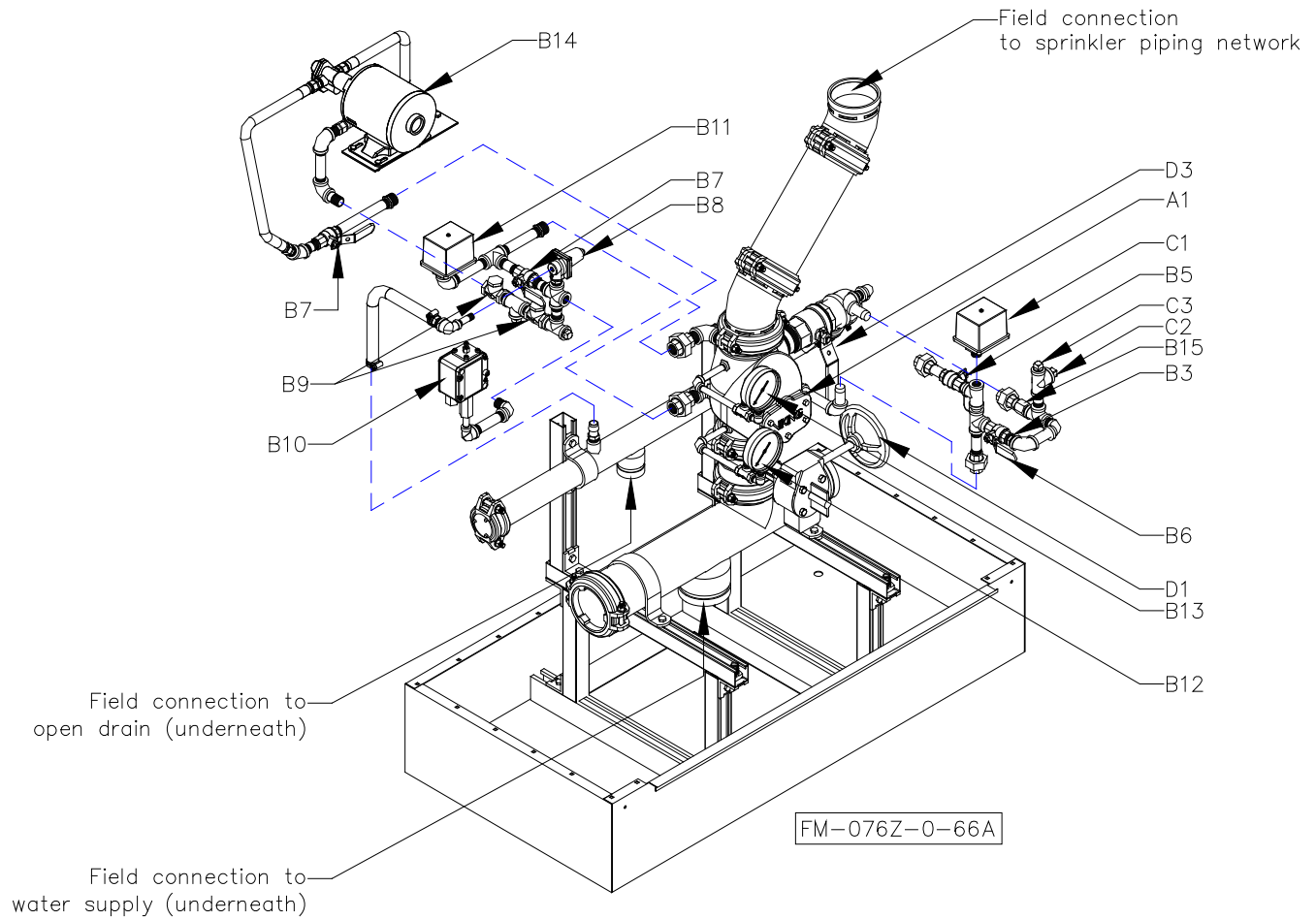
Details & field wiring diagrams

Cabinet with main components, shown without door



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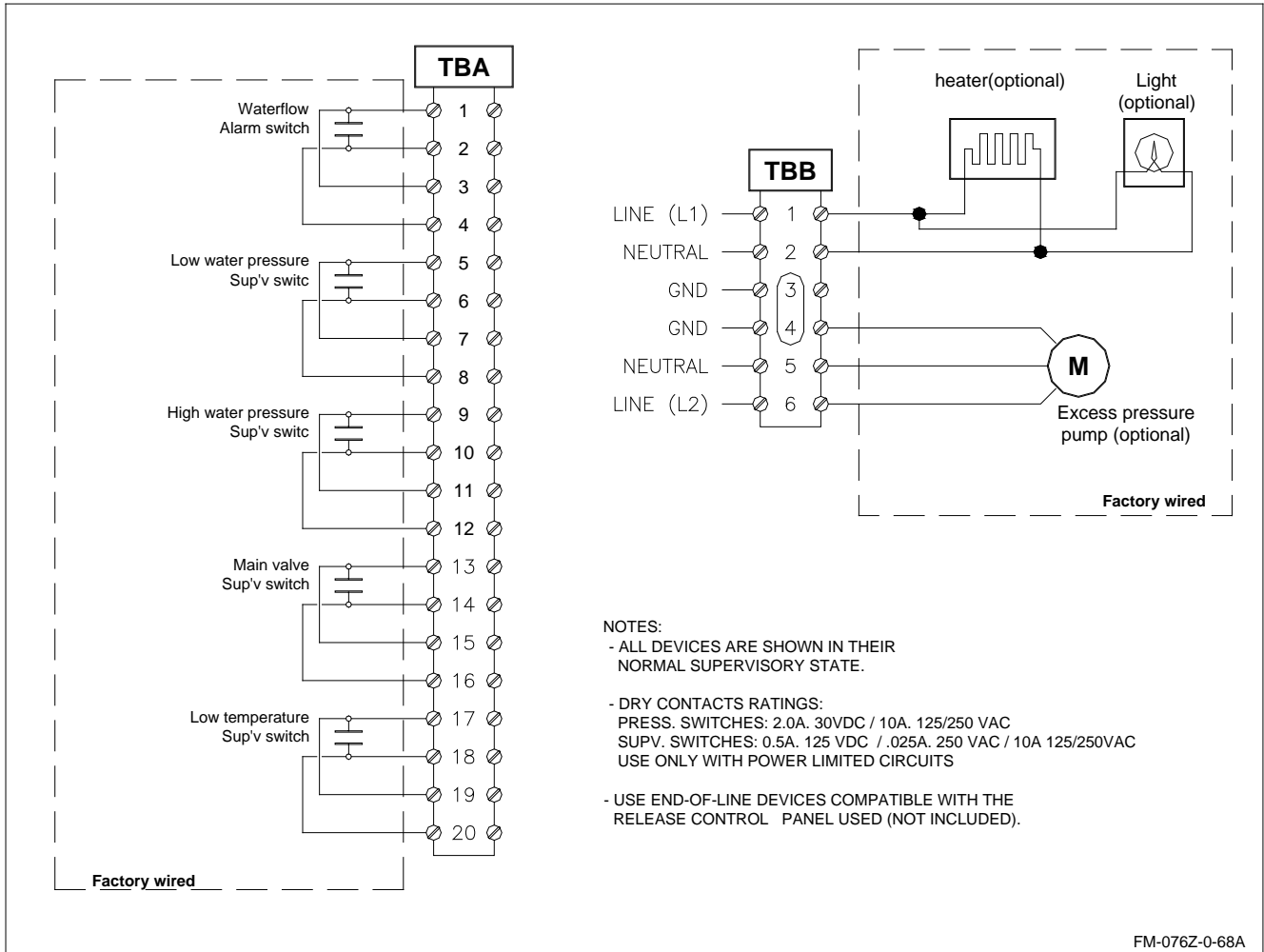
Trim diagram



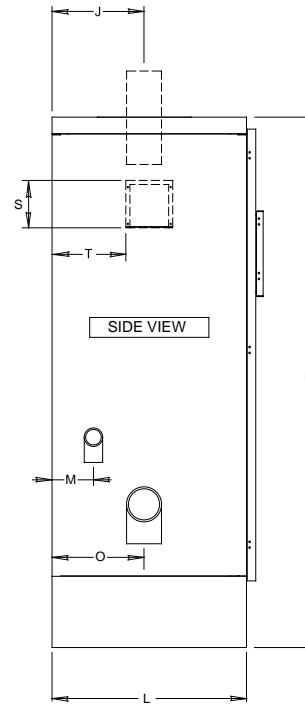
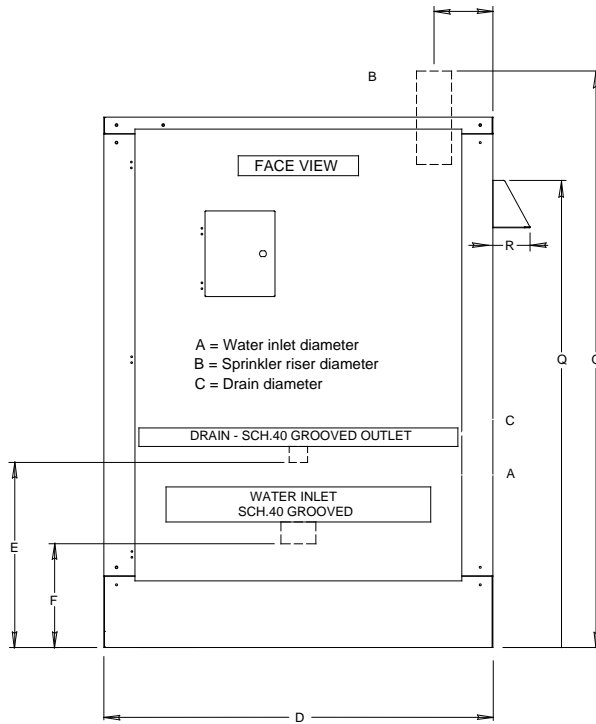
Components:

A1	Alarm Check valve	C1	Alarm pressure switch
B3	3/8" restricted orifice	C2	Connection to water motor gong (strainer supplied by contractor)
B4	Spring Loaded check valve	C3	Connection to optional electric alarm switch
B5	Alarm test valve	D1	Water supply control valve
B6	Alarm shut-off valve	D3	Main drain valve
B7	7/32" Restricted Orifice		
B12	Water pressure gauge & valve - Supply		
B13	Water pressure gauge & valve – System		
B14	Retard Chamber		
B15	1/8" Restricted orifice		

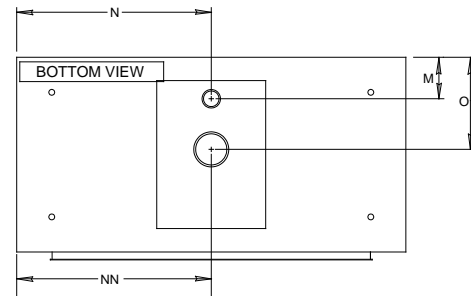
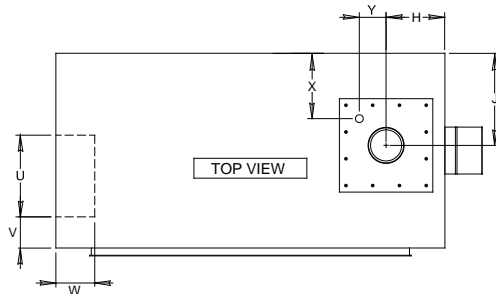
Wiring diagrams



Dimensions

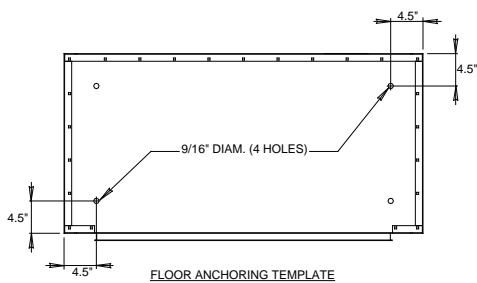


FM-076Z-0-54B



Dimensions are nominal and may vary $\pm 1/4"$.

Size	A	B	C	D	E	F	G	H	J	K	L	M	N	NN	O	Q	R	S	T	U	V	W	X	Y
3"	4"	3"	2"	50"	23"	12.5"	74"	8.75"	10.75"	68"	25"	5.25"	29.5"	25"	10.75"	60"	4.75"	6"	9.5"	10.5"	4"	5"	9.5"	9"
4"	4"	4"	2"	50"	23"	12.5"	74"	8"	11.75"	68"	25"	5.25"	28"	25.5"	11.75"	60"	4.75"	6"	9.5"	10.5"	4"	5"	9.5"	9"
6"	6"	6"	2"	50"	21"	12"	74"	8.5"	11.75"	68"	25"	5.25"	29.75"	25"	11.75"	60"	4.75"	6"	9.5"	10.5"	4"	5"	9.5"	9"





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