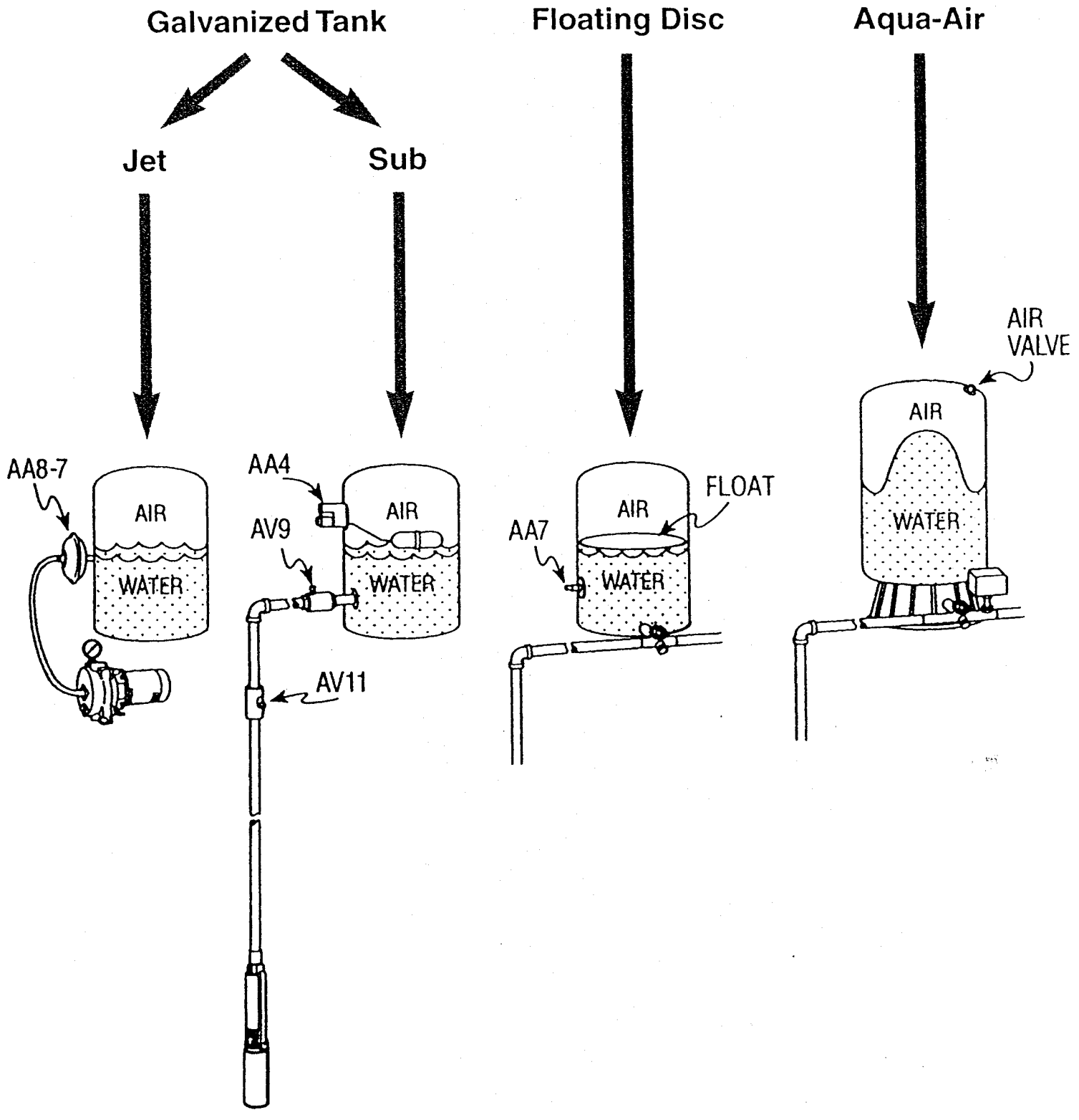
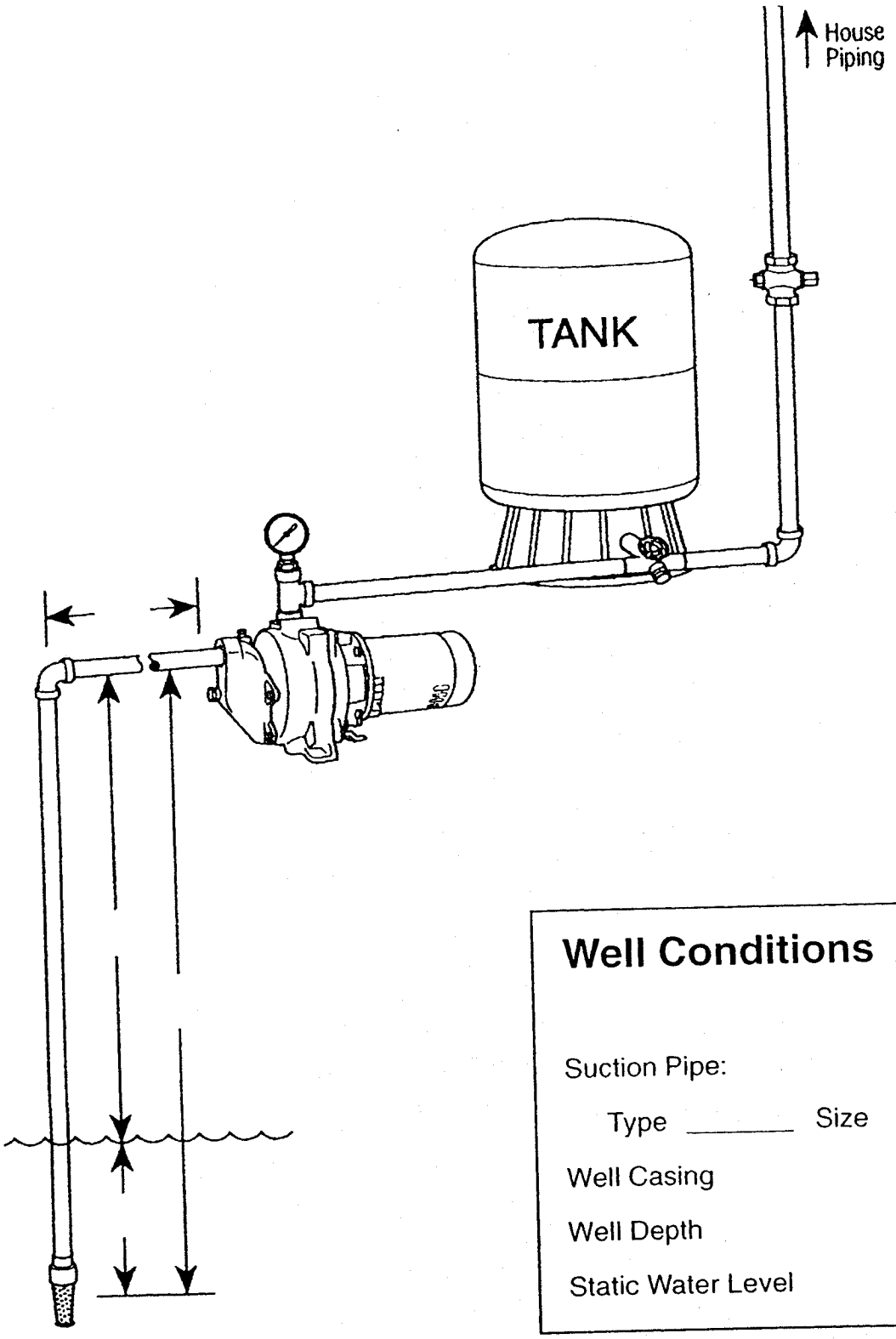
Water Systems
Sizing and Selection



Shallow Well Jet Pump

DIAGRAM



Well Conditions

Suction Pipe:

Type _____ Size _____

Well Casing _____ in.

Well Depth _____ ft.

Static Water Level _____ ft.

Shallow Well Jet Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower	_____
Toilet	_____
Lavatory	_____
Kitchen Sink	_____
Dishwasher	_____
Washing Machine	_____
Hose Bib	_____
Other	_____
TOTAL OUTLETS	_____
x 1 GPM =	_____ GPM

Peak Demand

No. of Outlets Being Used at Same Time	_____
x 3 GPM =	_____ GPM

Step 2

Suction Conditions

Friction Loss Calculation

90° Elbow =	_____ ft.
Foot Valve =	_____ ft.
Pipe =	_____ ft.
TOTAL =	_____ ft.

Total _____ Ft. / 100 = _____ Number of Hundred

x _____ Friction Loss/100 Ft. of Pipe

= _____ Ft. (Friction Loss)

Vertical Lift	_____ ft.
+ Friction Loss	_____ ft.
= TOTAL LIFT	_____ ft. (Max. 25 ft.)

Step 3

Pressure Needed

Pressure Switch Settings:

Cut-On	_____ PSI
Cut-Off	_____ PSI

(Check Max. Shut-Off PSI from Bulletin)

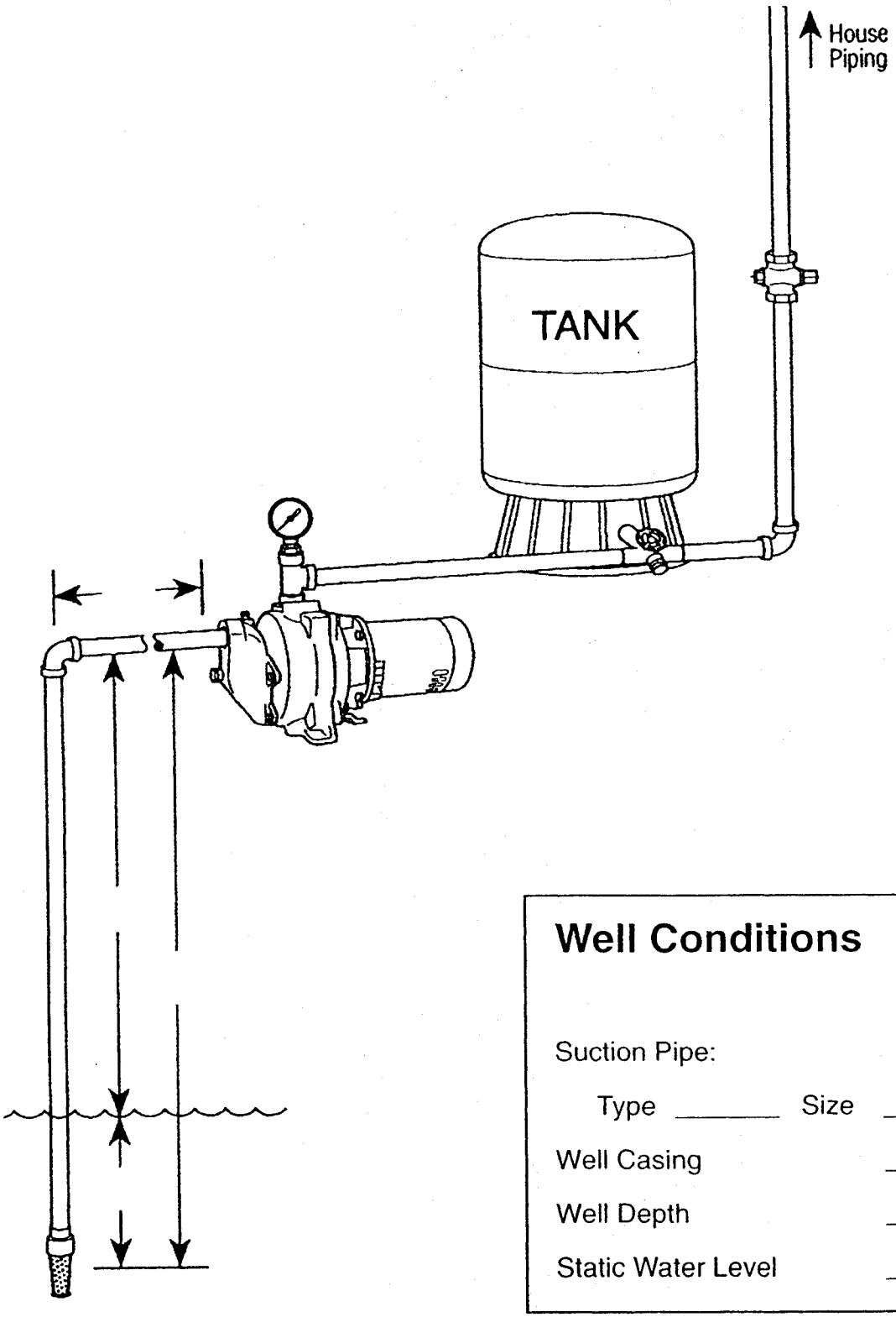
Tank Pressure Set @2 PSI Less Than Cut-On = _____ PSI

Step 4

Selection

Pump Model	_____
Shallow Well Adapter	_____
Tank	_____
Alternate Pump	_____

Shallow Well Jet Pump DIAGRAM



Well Conditions

Suction Pipe:

Type _____ Size _____

Well Casing _____ in.

Well Depth _____ ft.

Static Water Level _____ ft.

Shallow Well Jet Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower _____

Toilet _____

Lavatory _____

Kitchen Sink _____

Dishwasher _____

Washing Machine _____

Hose Bib _____

Other _____

TOTAL OUTLETS _____

x 1 GPM = _____ GPM

Peak Demand

No. of Outlets Being Used at Same Time _____

x 3 GPM = _____ GPM

Step 2

Suction Conditions

Friction Loss Calculation

90° Elbow = _____ ft.

Foot Valve = _____ ft.

Pipe = _____ ft.

TOTAL = _____ ft.

$\frac{\text{Total } \_\_\_\_ \text{ Ft.}}{100}$ = _____ Number of Hundred

x _____ Friction Loss/100 Ft. of Pipe

= _____ Ft. (Friction Loss)

Vertical Lift _____ ft.

+ Friction Loss _____ ft.

= TOTAL LIFT _____ ft.
(Max. 25 ft.)

Step 3

Pressure Needed

Pressure Switch Settings:

Cut-On _____ PSI

Cut-Off _____ PSI

(Check Max. Shut-Off PSI from Bulletin)

Tank Pressure Set @2 PSI Less Than Cut-On = _____ PSI

Step 4

Selection

Pump Model _____

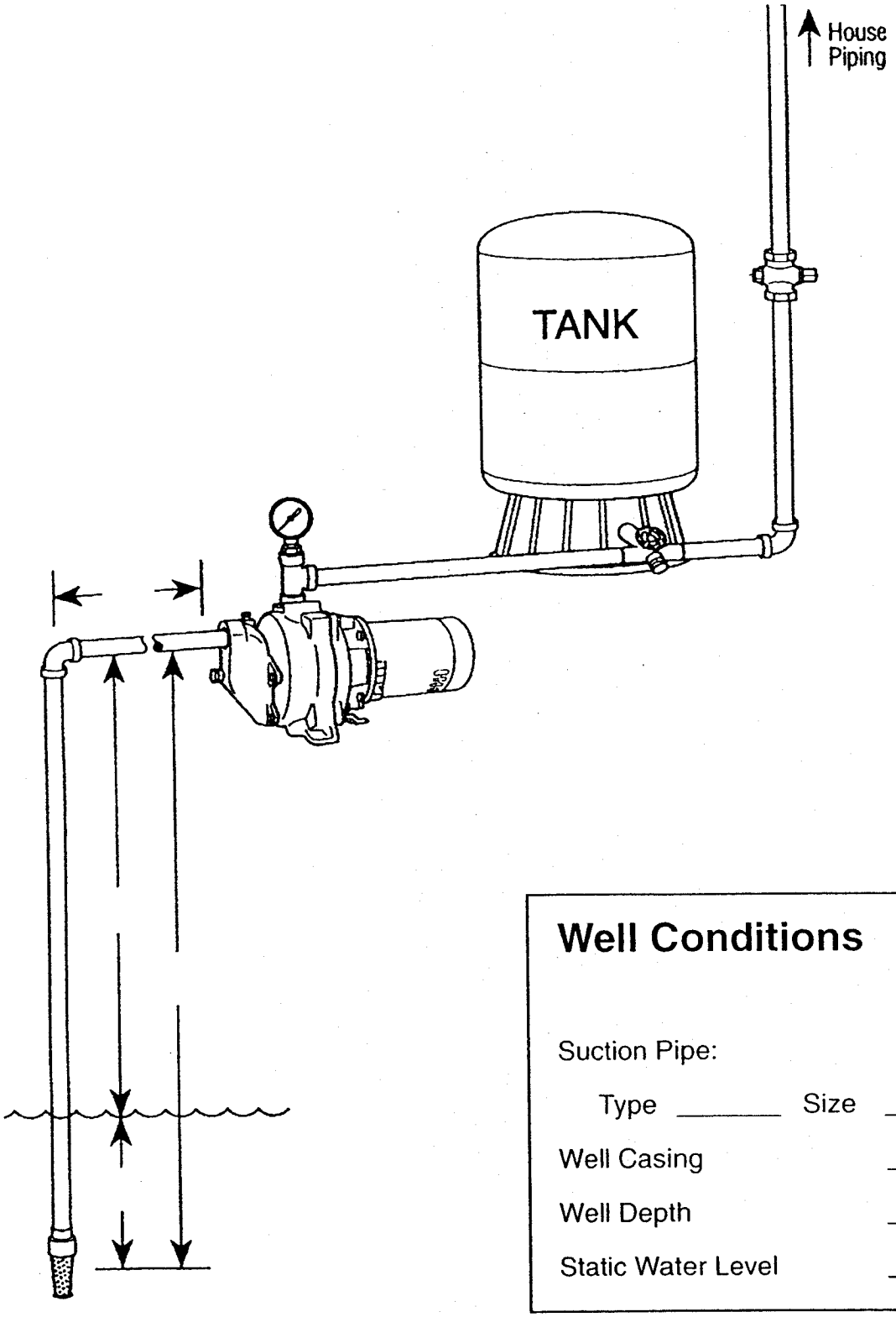
Shallow Well Adapter _____

Tank _____

Alternate Pump _____

Shallow Well Jet Pump

DIAGRAM



Well Conditions

Suction Pipe:

Type _____ Size _____

Well Casing _____ in.

Well Depth _____ ft.

Static Water Level _____ ft.

Shallow Well Jet Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower	_____
Toilet	_____
Lavatory	_____
Kitchen Sink	_____
Dishwasher	_____
Washing Machine	_____
Hose Bib	_____
Other	_____
TOTAL OUTLETS	_____
x 1 GPM =	_____ GPM

Peak Demand

No. of Outlets Being Used at Same Time	_____
x 3 GPM =	_____ GPM

Step 2

Suction Conditions

Friction Loss Calculation

90° Elbow =	_____ ft.
Foot Valve =	_____ ft.
Pipe =	_____ ft.
TOTAL =	_____ ft.

Total _____ Ft. / 100 = _____ Number of Hundred

x _____ Friction Loss/100 Ft. of Pipe

= _____ Ft. (Friction Loss)

Vertical Lift	_____ ft.
+ Friction Loss	_____ ft.
= TOTAL LIFT	_____ ft. (Max. 25 ft.)

Step 3

Pressure Needed

Pressure Switch Settings:

Cut-On	_____ PSI
Cut-Off	_____ PSI

(Check Max. Shut-Off PSI from Bulletin)

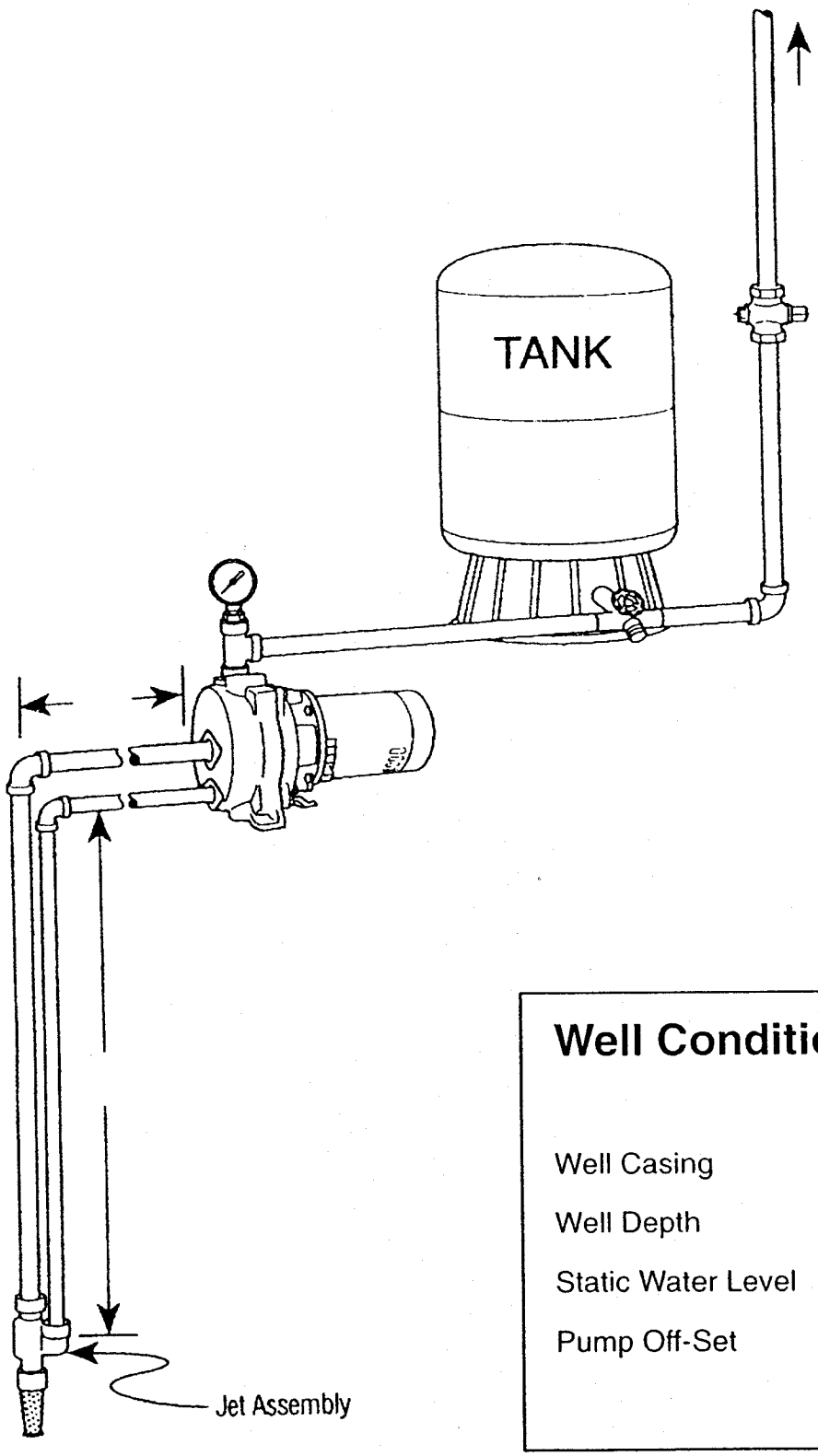
Tank Pressure Set @2 PSI Less Than Cut-On =	_____ PSI

Step 4

Selection

Pump Model	_____
Shallow Well Adapter	_____
Tank	_____
Alternate Pump	_____

Deep Well Jet Pump DIAGRAM



Well Conditions

Well Casing	_____ in.
Well Depth	_____ ft.
Static Water Level	_____ ft.
Pump Off-Set	_____ ft.

Deep Well Jet Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower	_____
Toilet	_____
Lavatory	_____
Kitchen Sink	_____
Dishwasher	_____
Washing Machine	_____
Hose Bib	_____
Other	_____
TOTAL OUTLETS	_____
x 1 GPM =	_____ GPM

Peak Demand

No. of Outlets Being Used at Same Time	_____
x 3 GPM =	_____ GPM

Step 2

Jet Assembly Setting (See Diagram) _____ ft.

Step 3

Pressure Needed

Pressure Switch Settings:

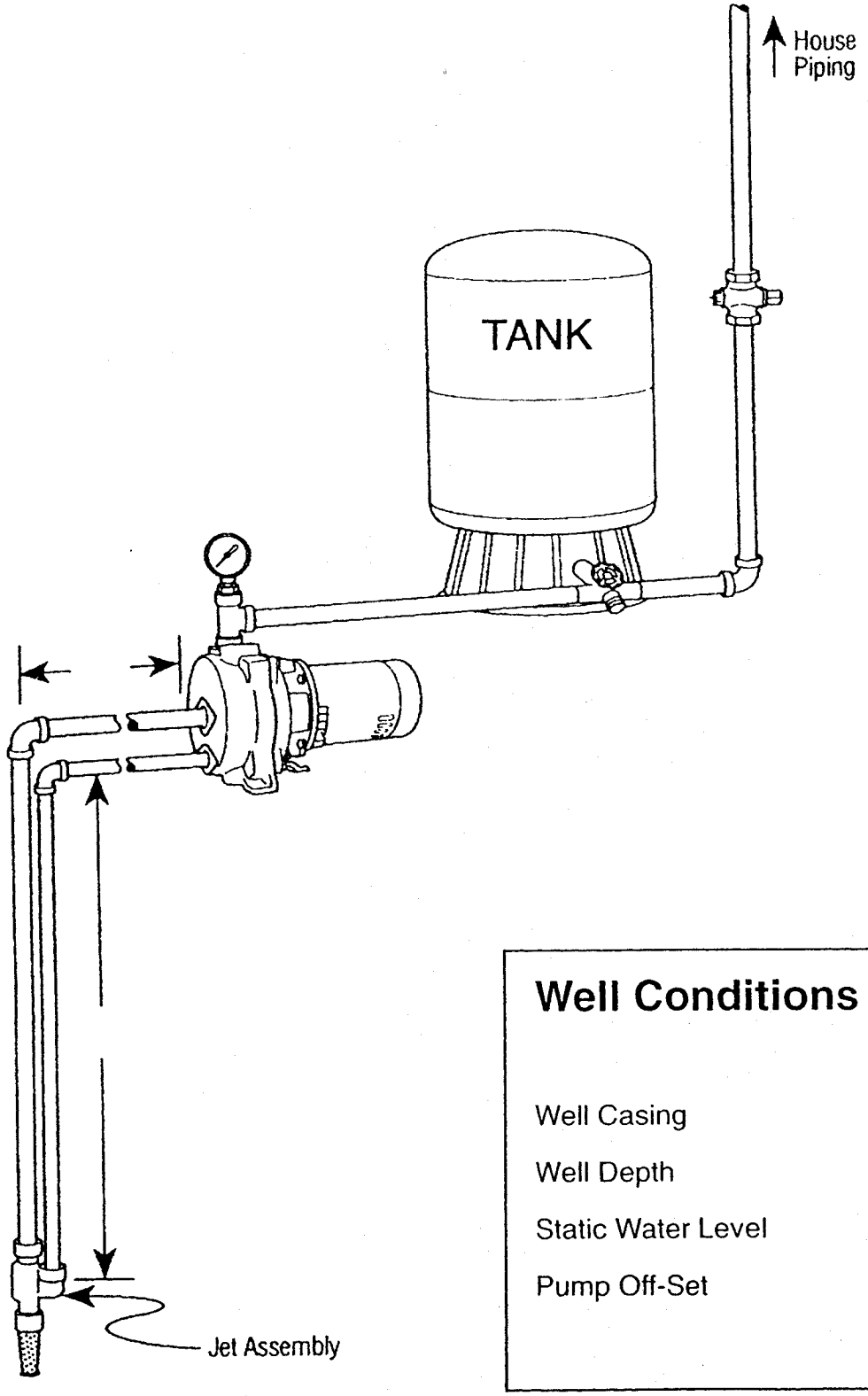
Cut-On	_____ PSI
Cut-Off	_____ PSI
Tank Pressure Set @2 PSI Less Than Cut-On =	_____ PSI

Step 4

Selection

Pump Model	_____
Jet Assembly	_____
Pressure Control Valve	_____
PCV Setting (PSI)	_____
Tank	_____

Deep Well Jet Pump DIAGRAM



Well Conditions

Well Casing	_____ in.
Well Depth	_____ ft.
Static Water Level	_____ ft.
Pump Off-Set	_____ ft.

Deep Well Jet Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower	_____
Toilet	_____
Lavatory	_____
Kitchen Sink	_____
Dishwasher	_____
Washing Machine	_____
Hose Bib	_____
Other	_____
TOTAL OUTLETS	_____
x 1 GPM =	_____ GPM

Peak Demand

No. of Outlets Being Used at Same Time	_____
x 3 GPM =	_____ GPM

Step 2

Jet Assembly Setting (See Diagram) _____ ft.

Step 3

Pressure Needed

Pressure Switch Settings:

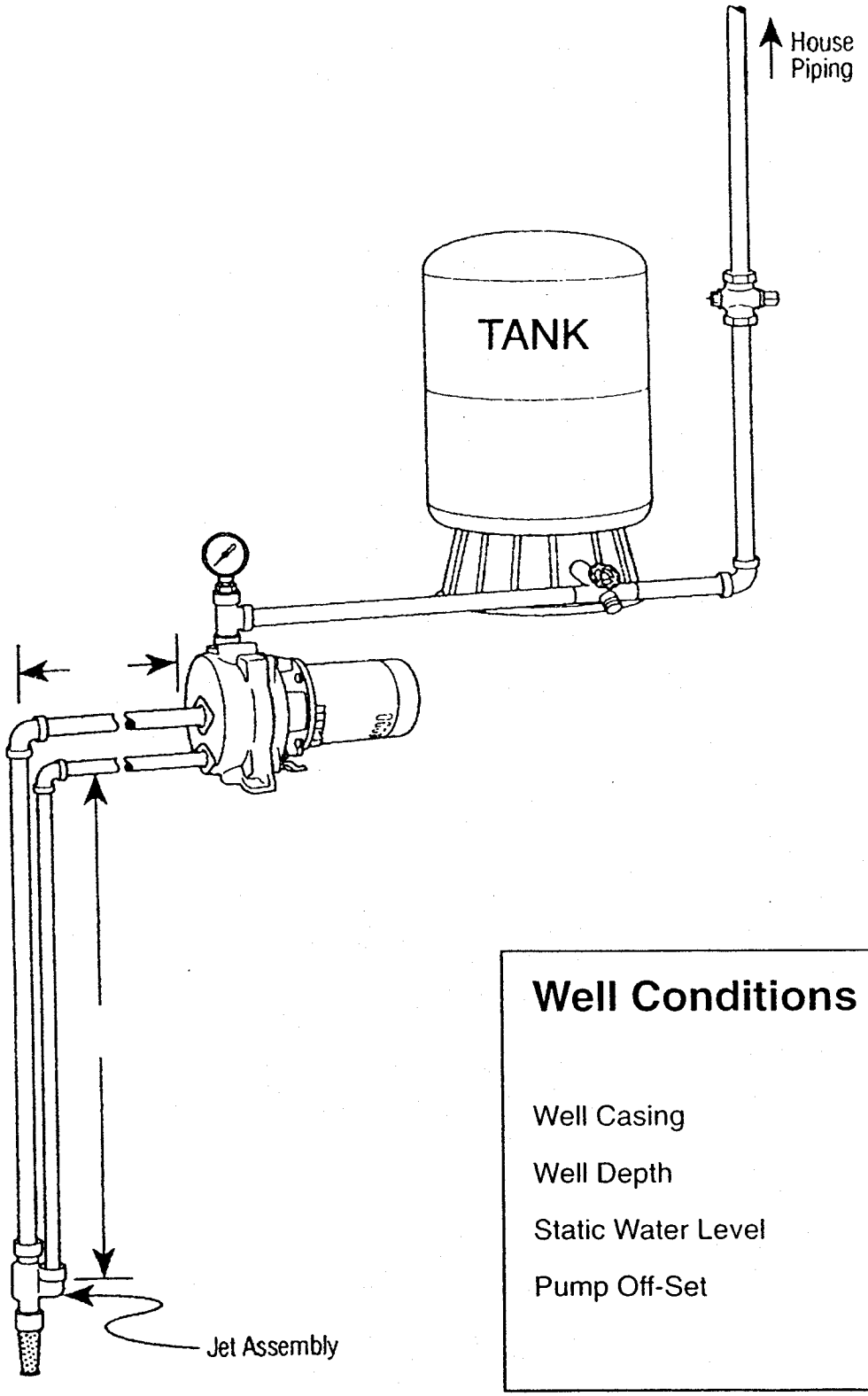
Cut-On	_____ PSI
Cut-Off	_____ PSI
Tank Pressure Set @2 PSI Less Than Cut-On =	_____ PSI

Step 4

Selection

Pump Model	_____
Jet Assembly	_____
Pressure Control Valve	_____
PCV Setting (PSI)	_____
Tank	_____

Deep Well Jet Pump DIAGRAM



Well Conditions

Well Casing	_____ in.
Well Depth	_____ ft.
Static Water Level	_____ ft.
Pump Off-Set	_____ ft.

Deep Well Jet Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower	_____
Toilet	_____
Lavatory	_____
Kitchen Sink	_____
Dishwasher	_____
Washing Machine	_____
Hose Bib	_____
Other	_____
TOTAL OUTLETS	_____
x 1 GPM =	_____ GPM

Peak Demand

No. of Outlets Being Used at Same Time	_____
x 3 GPM =	_____ GPM

Step 2

Jet Assembly Setting (See Diagram) _____ ft.

Step 3

Pressure Needed

Pressure Switch Settings:

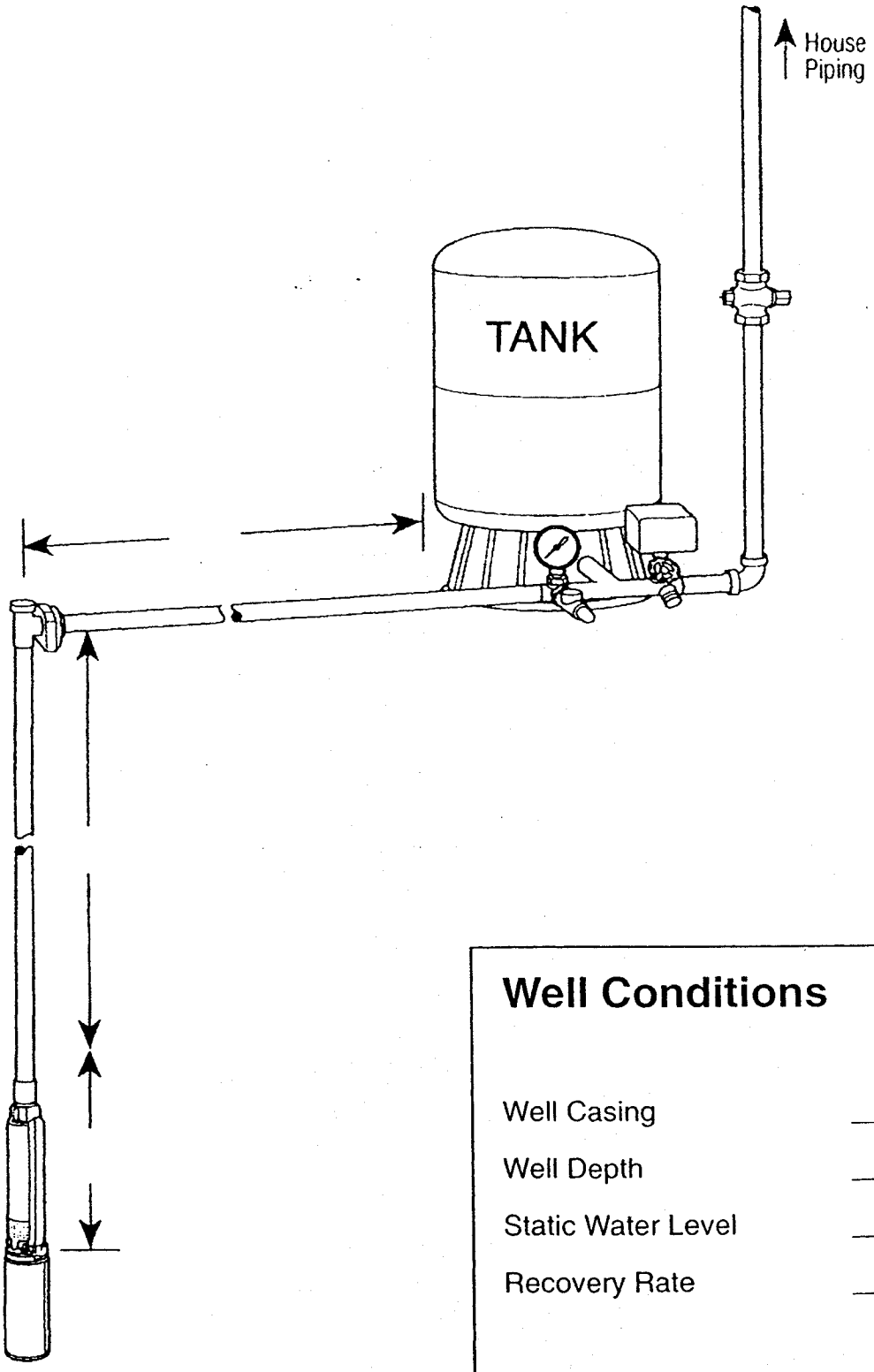
Cut-On	_____ PSI
Cut-Off	_____ PSI
Tank Pressure Set @2 PSI Less Than Cut-On =	_____ PSI

Step 4

Selection

Pump Model	_____
Jet Assembly	_____
Pressure Control Valve	_____
PCV Setting (PSI)	_____
Tank	_____

Submersible Pump DIAGRAM



Well Conditions

Well Casing	_____ in.
Well Depth	_____ ft.
Static Water Level	_____ ft.
Recovery Rate	_____ GPM

Submersible Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower _____

Toilet _____

Lavatory _____

Kitchen Sink _____

Dishwasher _____

Washing Machine _____

Hose Bib _____

Other _____

OTAL OUTLETS _____

x 1 GPM = _____ GPM

Peak Demand

No. of Outlets Being Used at Same Time _____

x 3 GPM = _____ GPM

Step 2

Determine Depth To Water

_____ Check Valve = _____ ft.

Pitless Adapter = _____ ft.

Pipe (_____") = _____ ft.

TOTAL = _____ ft.

Total _____ Ft. / 100 = _____ Number of Hundred

x _____ Friction Loss/100 Ft. of Pipe

= _____ Ft. (Friction Loss)

Vertical Elevation = _____ ft.

+ Friction Loss = _____ ft.

Total Head (Depth to Water) _____ ft.

Step 3

Pressure Needed

Pressure Switch Settings:

Cut-On _____ PSI

Cut-Off _____ PSI

(Check Max. Shut-Off PSI from Bulletin)

Tank Pressure Set @2 PSI Less Than Cut-On = _____ PSI

_ectrical:

_____ Phase/_____ Volt/_____ Wire Motor

Step 4

Selection

Pump Model _____

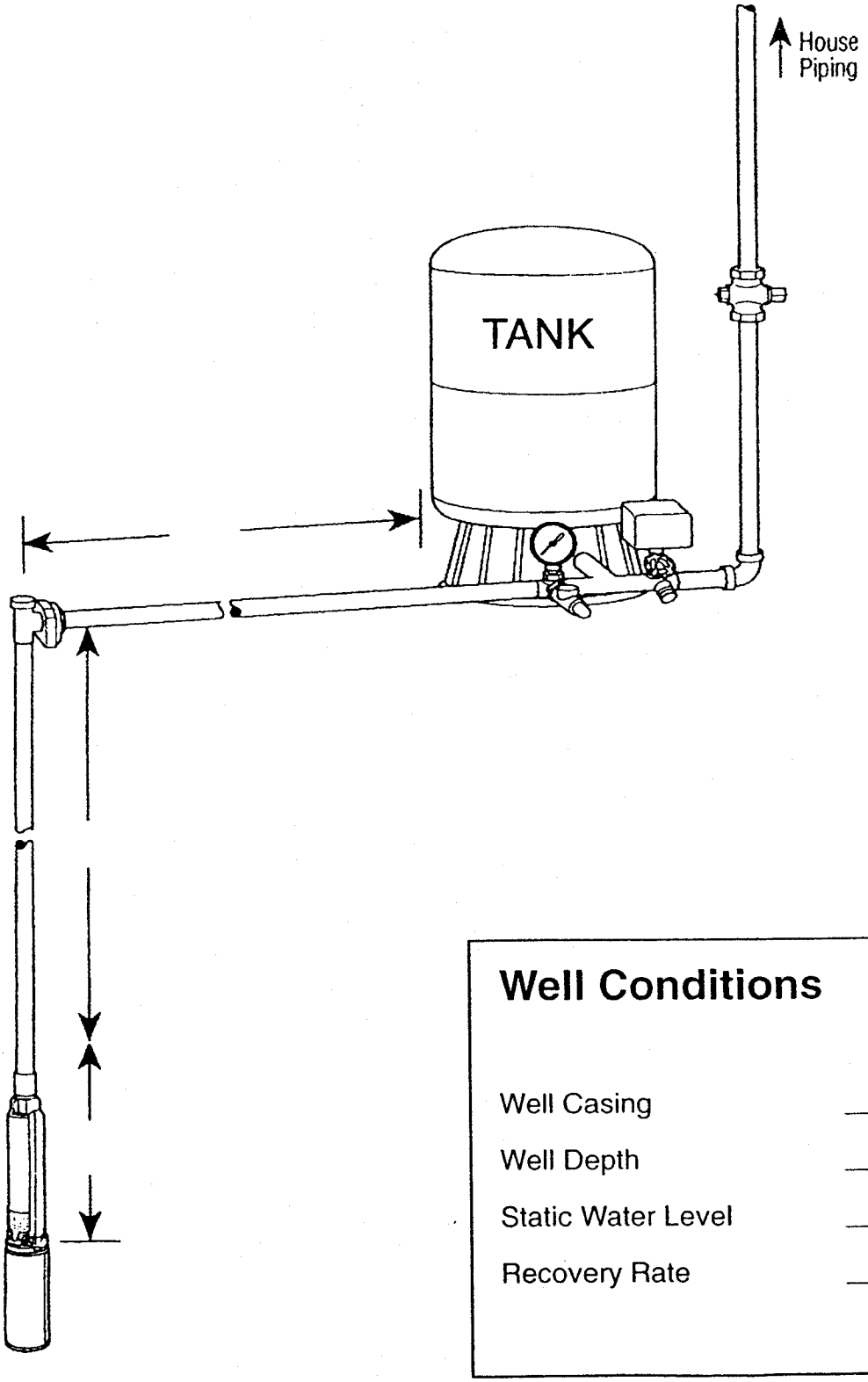
Wire Size _____

Tank _____

Relief Valve _____

Motor _____

Submersible Pump DIAGRAM



Well Conditions

Well Casing	_____ in.
Well Depth	_____ ft.
Static Water Level	_____ ft.
Recovery Rate	_____ GPM

Submersible Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower	_____
Toilet	_____
Lavatory	_____
Kitchen Sink	_____
Dishwasher	_____
Washing Machine	_____
Hose Bib	_____
Other	_____
TAL OUTLETS	_____
x 1 GPM =	_____ GPM

eak Demand

No. of Outlets Being Used at Same Time	_____
x 3 GPM =	_____ GPM

Step 2

Determine Depth To Water

_____ Check Valve = _____ ft.

Pitless Adapter = _____ ft.

Pipe (_____") = _____ ft.

TOTAL = _____ ft.

Total _____ Ft. / 100 = _____ Number of Hundred

x _____ Friction Loss/100 Ft. of Pipe

= _____ Ft. (Friction Loss)

Vertical Elevation = _____ ft.

+ Friction Loss = _____ ft.

Total Head (Depth to Water) _____ ft.

tep 3

ressure Needed

ressure Switch Settings:

Cut-On	_____ PSI
Cut-Off	_____ PSI

heck Max. Shut-Off PSI from Bulletin)

Tank Pressure Set @2 PSI Less Than Cut-On =	_____ PSI

trical:

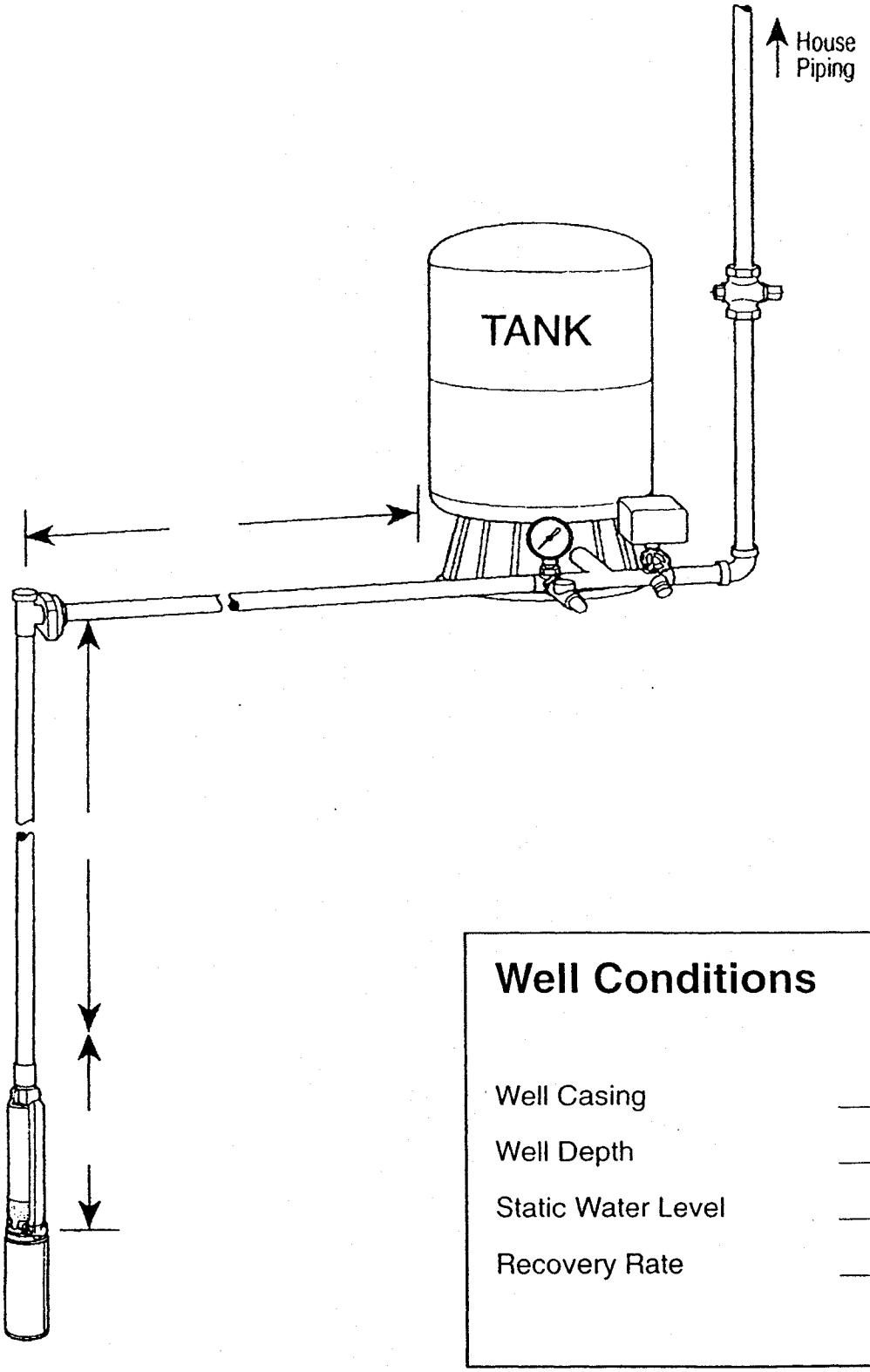
_____ Phase/_____ Volt/_____ Wire Motor

Step 4

Selection

Pump Model	_____
Wire Size	_____
Tank	_____
Relief Valve	_____
Motor	_____

Submersible Pump DIAGRAM



Well Conditions

Well Casing	_____ in.
Well Depth	_____ ft.
Static Water Level	_____ ft.
Recovery Rate	_____ GPM

Submersible Pump WORKSHEET

Step 1

Capacity Needed

Fixtures:

Bathtub/Shower	_____
Toilet	_____
Lavatory	_____
Kitchen Sink	_____
Dishwasher	_____
Washing Machine	_____
Hose Bib	_____
Other	_____
TOTAL OUTLETS	_____
x 1 GPM =	_____ GPM

Peak Demand

No. of Outlets Being Used at Same Time	_____
x 3 GPM =	_____ GPM

Step 2

Determine Depth To Water

_____ Check Valve = _____ ft.

Pitless Adapter = _____ ft.

Pipe (_____") = _____ ft.

TOTAL = _____ ft.

Total _____ Ft. / 100 = _____ Number of Hundred

x _____ Friction Loss/100 Ft. of Pipe

= _____ Ft. (Friction Loss)

Vertical Elevation = _____ ft.

+ Friction Loss = _____ ft.

Total Head (Depth to Water) _____ ft.

Step 3

Pressure Needed

Pressure Switch Settings:

Cut-On	_____ PSI
Cut-Off	_____ PSI

(Check Max. Shut-Off PSI from Bulletin)

Tank Pressure Set @2 PSI Less Than Cut-On =	_____ PSI

Electrical:

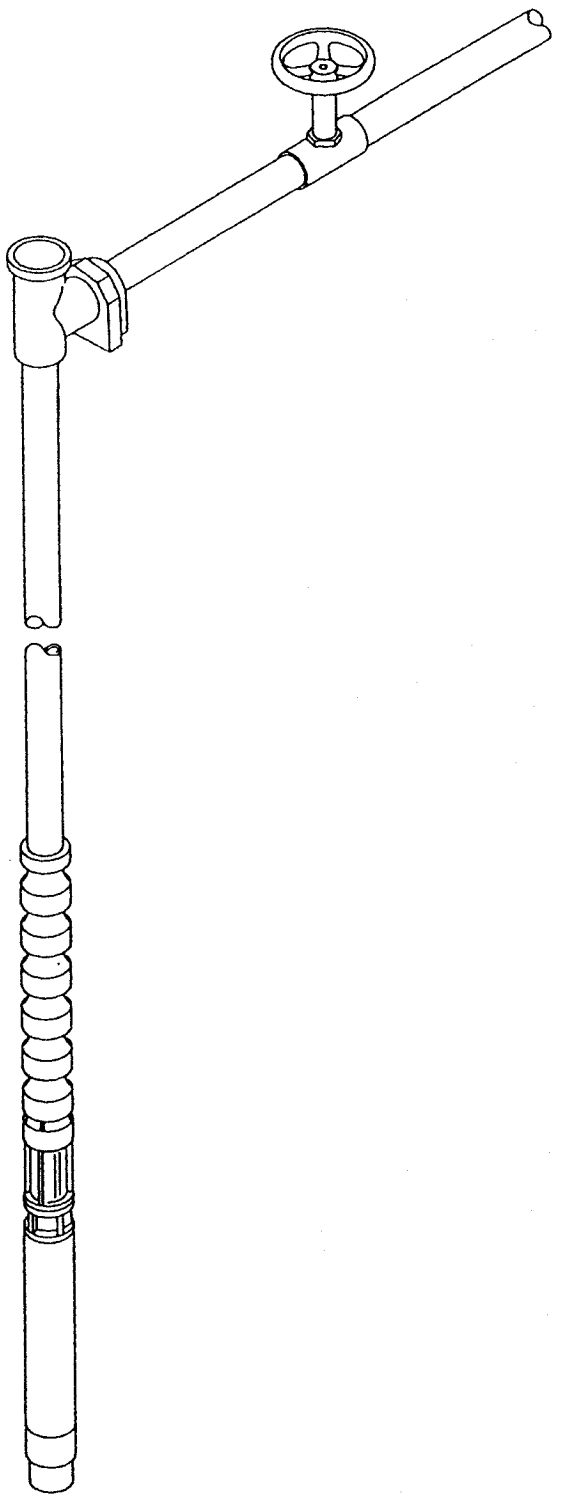
_____ Phase/_____ Volt/_____ Wire Motor

Step 4

Selection

Pump Model	_____
Wire Size	_____
Tank	_____
Relief Valve	_____
Motor	_____

Submersible Turbine Pump WORKSHEET



_____ **GPM @** _____
_____**' Pumping Level**
_____**" Casing**
_____**' Wire**
_____ **Phase/**_____ **V.**

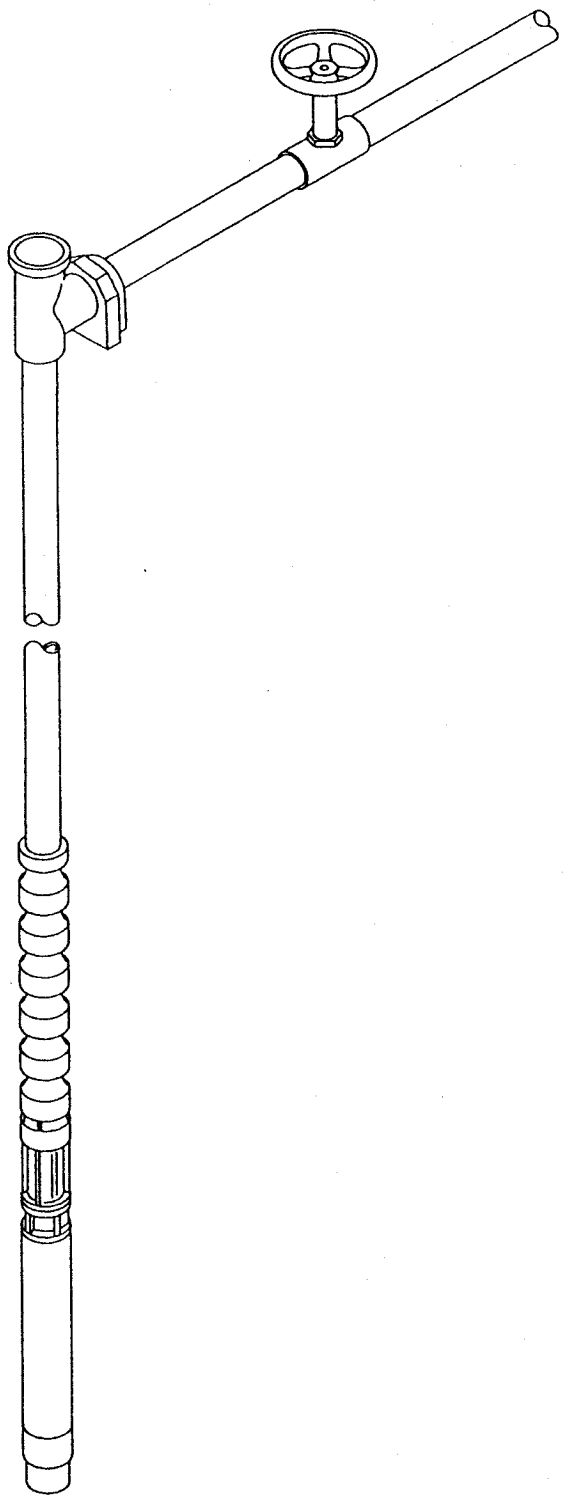
Check Valve =	_____ ft.
Pitless Adapter/Tee =	_____ ft.
Pipe =	_____ ft.
Globe Valve =	_____ ft.
TOTAL =	_____ ft.
Round Up To =	_____ ft.

_____ = Number of Hundreds
x _____ = Loss Per Hundred Ft. of Pipe
_____ = ft. or _____ ft. Friction Loss

Vertical Elevation=	_____ ft.
+ Friction Loss =	_____ ft.
+ Pressure_____ x 2.31 ft. =	_____ ft.
Total Dynamic Head (TDH) =	_____ ft.
Required _____ GPM @	_____ ft. TDH

Pump Model	_____
Efficiency (%)	_____
Motor Number	_____
Magnetic Starter	_____
Heaters (3)	_____
Cable Size (Wire)	_____

Submersible Turbine Pump WORKSHEET



_____ **GPM @** _____
_____**' Pumping Level**
_____**" Casing**
_____**' Wire**
_____ **Phase/**_____ **V.**

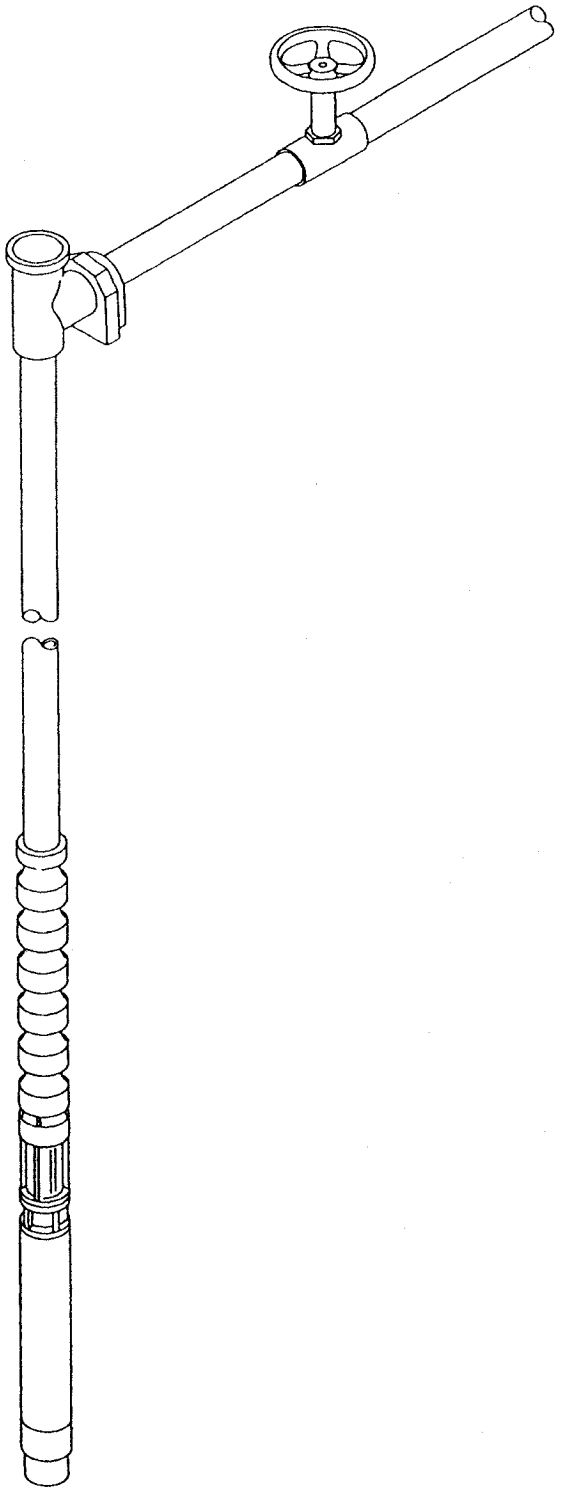
Check Valve =	_____ ft.
Pitless Adapter/Tee =	_____ ft.
Pipe =	_____ ft.
Globe Valve =	_____ ft.
TOTAL =	_____ ft.
Round Up To =	_____ ft.

_____ = Number of Hundreds
x _____ = Loss Per Hundred Ft. of Pipe
_____ = ft. or _____ ft. Friction Loss

Vertical Elevation=	_____ ft.
+ Friction Loss =	_____ ft.
+ Pressure_____ x 2.31 ft. =	_____ ft.
Total Dynamic Head (TDH) =	_____ ft.
Required _____ GPM @	_____ ft. TDH

Pump Model	_____
Efficiency (%)	_____
Motor Number	_____
Magnetic Starter	_____
Heaters (3)	_____
Cable Size (Wire)	_____

Submersible Turbine Pump WORKSHEET



_____ **GPM @** _____
_____**' Pumping Level**
_____**" Casing**
_____**' Wire**
_____ **Phase/**_____ **V.**

Check Valve =	_____ ft.
Pitless Adapter/Tee =	_____ ft.
Pipe =	_____ ft.
Globe Valve =	_____ ft.
TOTAL =	_____ ft.
Round Up To =	_____ ft.

_____ = Number of Hundreds
x _____ = Loss Per Hundred Ft. of Pipe
_____ = ft. or _____ ft. Friction Loss

Vertical Elevation=	_____ ft.
+ Friction Loss =	_____ ft.
+ Pressure_____ x 2.31 ft. =	_____ ft.
Total Dynamic Head (TDH) =	_____ ft.
Required _____ GPM @	_____ ft. TDH

Pump Model	_____
Efficiency (%)	_____
Motor Number	_____
Magnetic Starter	_____
Heaters (3)	_____
Cable Size (Wire)	_____