

FIGURE - 4
CLOSE COUPLED ARRANGEMENT

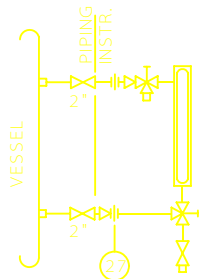


FIGURE - 6
CLOSE COUPLED ARRANGEMENT

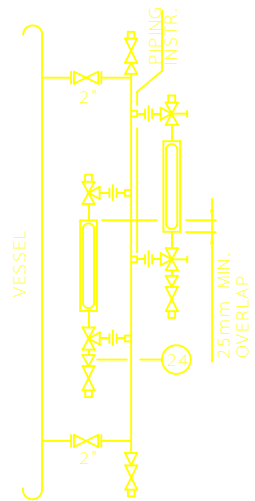


FIGURE - 5
STAND PIPE ARRANGEMENT

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
24		2"x3/4"	SWAGE NIPPLE	
25		3/4"	GATE VALVE	
26		3/4"	PLUG	
27		3/4"	UNION	
28		3/4"	NIPPLE	
29		3/4"	TEE EQUAL	
30		3/4"	LINE PIPE MIN. SCHEDULE 40	

NOTES :

C		
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A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

LEVEL INSTRUMENT
GAUGE GLASS

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	42	42

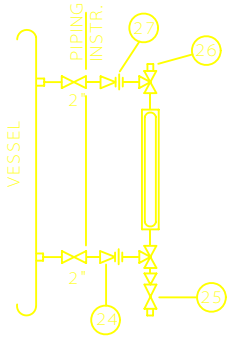


FIGURE - 1

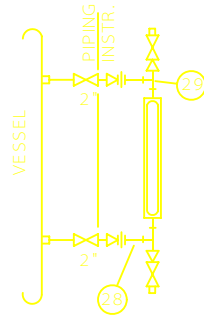


FIGURE - 2

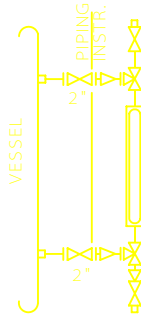



FIGURE - 3

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
13		2"	FLANGE WITH GASKET, NUT & BOLT	
24		2"x3/4"	SWAGE NIPPLE	
25		3/4"	GATE VALVE	
26		3/4"	PLUG	
27		3/4"	UNION	
28		3/4"	NIPPLE	
29		3/4"	TEE EQUAL	

NOTES:

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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS 

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LEVEL INSTRUMENT GAUGE GLASS	DATE	DRAWING No.	SHT	REV.
		IPS - D - IN - 104	41	42

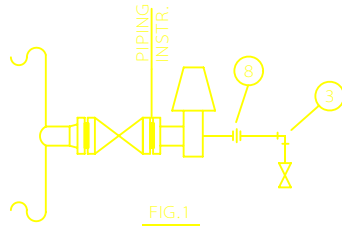


FIG.1
(ATMOSPHERIC TANK)
OPEN TANK

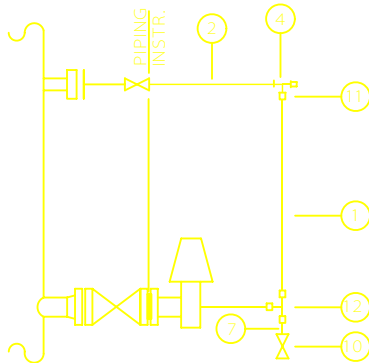


FIG.2
ALTERNATIVE INSTALLATION
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE MIN. SCHEDULE 40	
2		1/2"	LINE PIPE	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
12		1/2"	TEE EQUAL COMPR. TYPE	

NOTES:

- 1- KEEP IMPULSE LINE TO MINIMUM LENGTH.
- 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.

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REV.	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS 

DIFFERENTIAL PRESSURE INSTRUMENT	SCALE	DRAWING No.	SHT/REV.
WET GAS SERVICE METER		IPS-D-IN-104	40/42

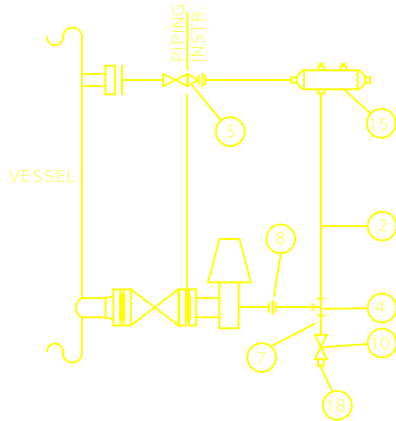


FIGURE - 1
PRESSURIZED TANK
WET LEG

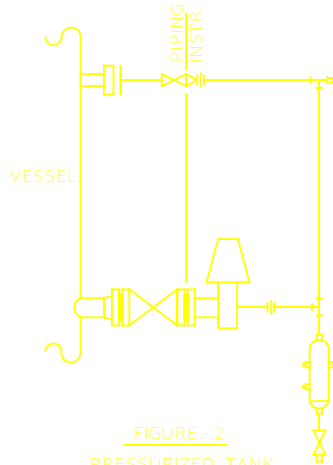


FIGURE - 2
PRESSURIZED TANK
DRY LEG

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
15		1/2"	MANIFOLD	
18		1/2"	POT	

NOTES :

1- KEEP IMPULSE LINE TO MINIMUM LENGTH.

C		
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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

LEVEL INSTRUMENT

ATMOSPHERIC & PRESSURIZED TYPE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	39	42

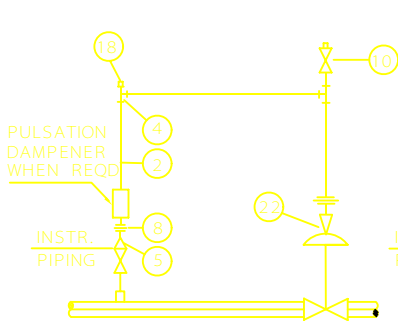


FIGURE - 1
PRESSURE REGULATOR VALVE

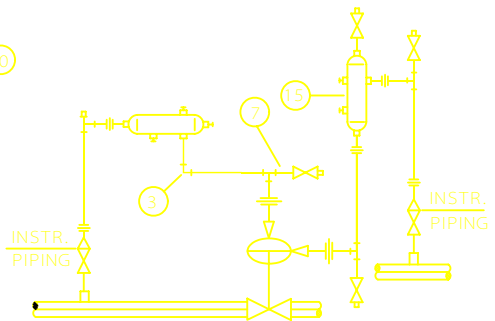


FIGURE - 2
DIFFERENTIAL PRESSURE REGULATOR VALVE WITH POT

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
10		1/2"	GATE VALVE	
15		1/2"	POT	
18		1/2"	PLUG	
22		1/2"x1/4"	SWAGE NIPPLE	

NOTES :

- 1 - KEEP IMPULSE LEADS TO MINIMUM LENGTH
- 2 - FOR SOCKET WELD INSTALLATION SWAGE NIPPLE IS THREAD ON ONE END.

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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE & DIFFERENTIAL
PRESSURE REGULATOR VALVE

DATE

DRAWING No.

SHT/REV.

IPS - D - IN - 104

38/42

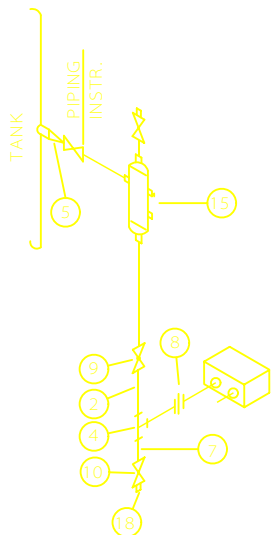


FIGURE - 1

DIFFERENTIAL PRESSURE TYPE

ON OPEN TANK

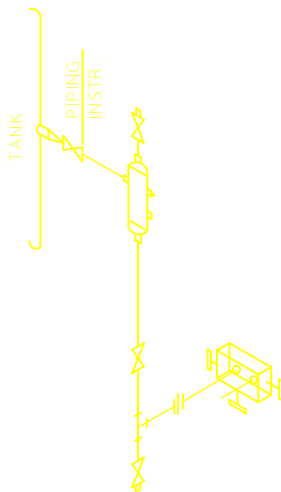


FIGURE - 2

ALTERNATIVE INSTALLATION

WITH MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
15		1/2"	POT	
18		1/2"	PLUG	

NOTES :

1- KEEP IMPULSE LINE TO MINIMUM LENGTH.

C		
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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



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LEVEL INSTRUMENT
DIFFERENTIAL PRESSURE
TYPE ON OPEN TANK

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	37	42

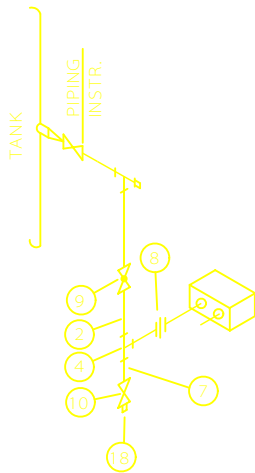


FIGURE -1

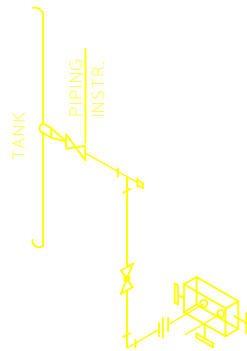


FIGURE -2
ALTERNATIVE INSTALLATION
WITH MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
18		1/2"	PLUG	

NOTES:

1 - KEEP IMPULSE LINES TO MINIMUM LENGTH

C		
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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

LEVEL INSTRUMENTS DIFFERENTIAL PRESSURE TYPE ON OPEN TANK	DATE	DRAWING No.	SHT/REV.
		IPS - D - IN - 104	36/42

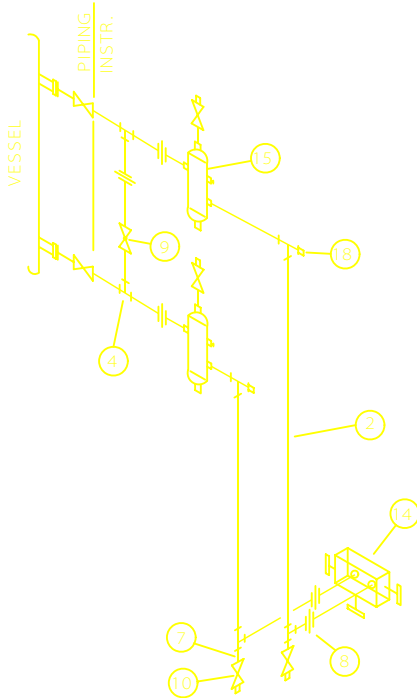


FIGURE -1
DIFFERENTIAL PRESSURE WITH SEAL LIQUID
WITH MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES :

1 - KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

LEVEL INSTRUMENT
LIQUID SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	35	42

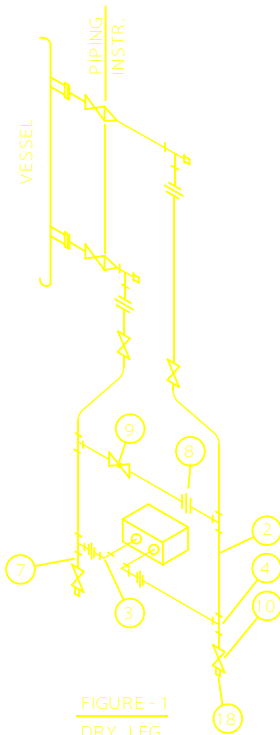


FIGURE - 1
DRY LEG

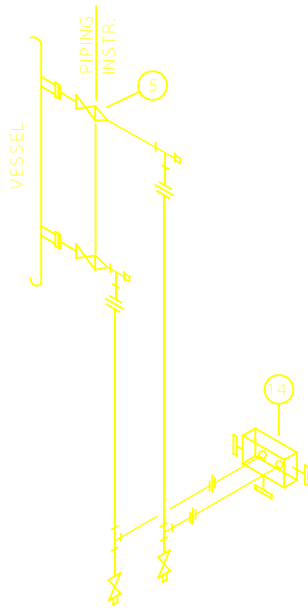


FIGURE - 2
DRY LEG
WITH MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES :

1- KEEP IMPULSE LINE TO MINIMUM LENGTH.

C		
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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

LEVEL INSTRUMENT
DIFFERENTIAL PRESSURE
TYPE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	34	42

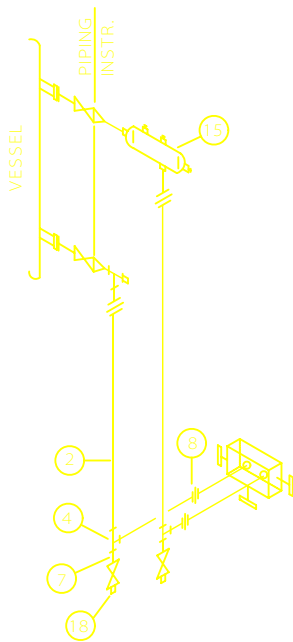


FIGURE - 1

DIFFERENTIAL PRESSURE WITH WET LEG

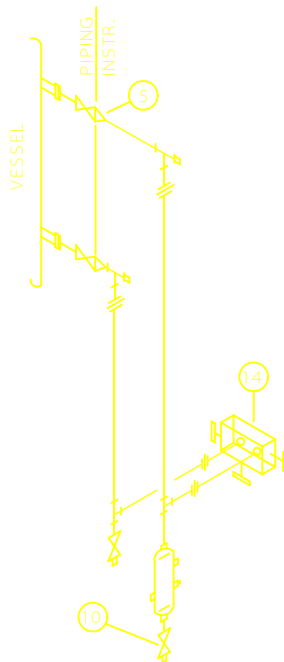


FIGURE - 2

DIFFERENTIAL PRESSURE WITH DRY LEG

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
15		1/2"	CONDENSATE POT	
18		1/2"	PLUG	

NOTES:

1- KEEP IMPULSE LINE TO MINIMUM LENGTH.

C		
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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

LEVEL INSTRUMENT
LIQUID SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	33	42

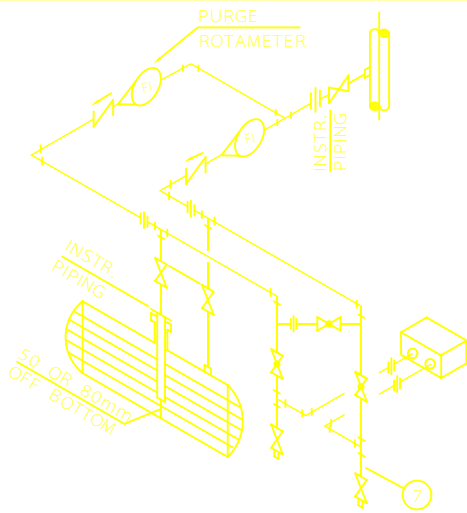


FIGURE -1
PRESSUREIZED TANK

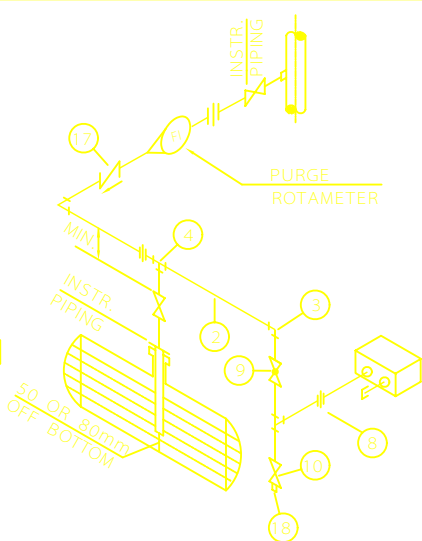


FIGURE -2
OPEN TANK

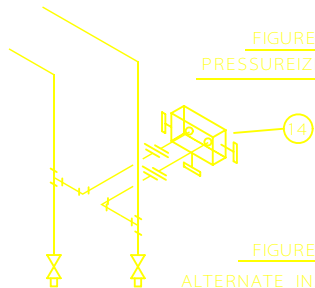


FIGURE -3
ALTERNATE INSTALLATION

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
17		1/2"	CHECK VALVE	
18		1/2"	PLUG	

NOTES :

1 - KEEP IMPULSE LINE TO MINIMUM LENGTH

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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



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LEVEL INSTRUMENTS
DIFFERENTIAL PRESSURE
TYPE AIR BUBBLER

DATE	DRAWING No.	SHT/REV.
	IPS - D - IN - 104	32/42

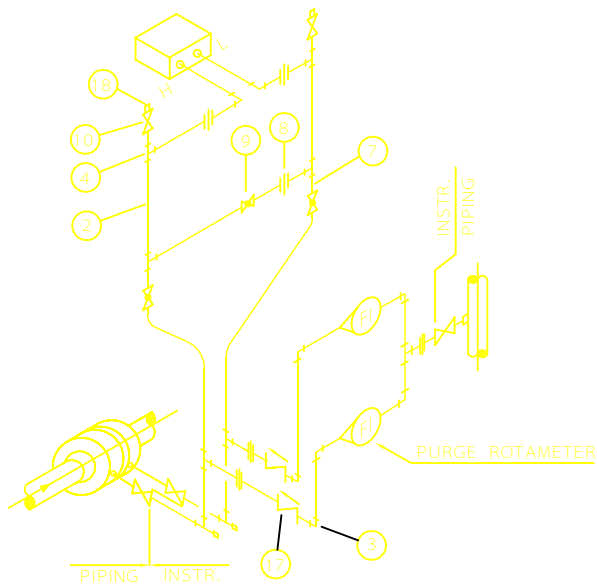



FIGURE -1
METER ABOVE LINE

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
17		1/2"	CHECK VALVE	
18		1/2"	PLUG	

NOTES :

- 1 - FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DWG. No. IPS - D - IN - 102
- 2 - KEEP IMPULSE LEADS TO MINIMUM LENGTH
- 3 - USE SWAGE NIPPLE 1/2"x1/4" FOR PURGE ROTAMETER.

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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS 

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FLOW INSTRUMENT LIQUID SERVICE WITH PURGING	DATE	DRAWING No.	SHT/REV.
		IPS - D - IN - 104	31/42

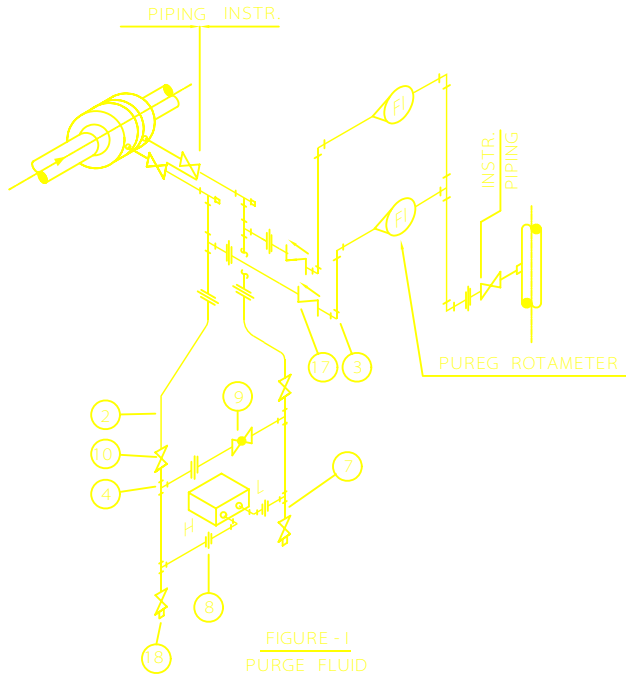



FIGURE - 1
PURGE FLUID
METER BELOW LINE

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
17		1/2"	CHECK VALVE	
18		1/2"	PLUG	

NOTES :

- 1 - FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DWG. No. IPS-D-IN-102
- 2 - KEEP IMPULSE LEADS TO MINIMUM LENGTH
- 3 - USE SWAGE NIPPLE 1/2"x1/4" FOR PURGE ROTAMETER.

C		
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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS 

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FLOW INSTRUMENT	DATE	DRAWING No.	SHT	REV.
LIQUID SERVICE WITH PURGING		IPS - D - IN - 104	30	42

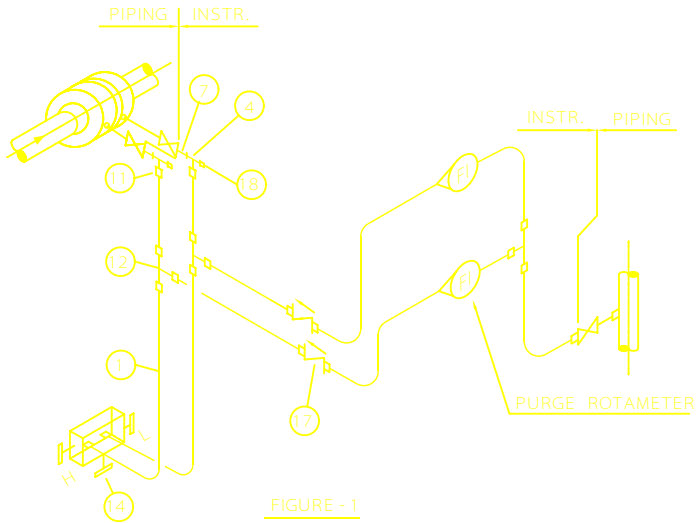


FIGURE - 1
METER BELOW LINE
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
12		1/2"	TEE EQUAL, COMPR. TYPE	
14		1/2"	MANIFOLD	
17		1/2"	CHECK VALVE	
18		1/2"	PLUG	

NOTES:

- 1 - FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102
- 2 - KEEP IMPULSE LEADS TO MINIMUM LENGTH
- 3 - USE REDUCING CONNECTOR 1/2"x1/4" FOR PURGE ROTAMETER.

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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



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FLOW INSTRUMENT	DATE	DRAWING No.	SHT	REV.
LIQUID SERVICE WITH PURGE		IPS - D - IN - 104	29	42

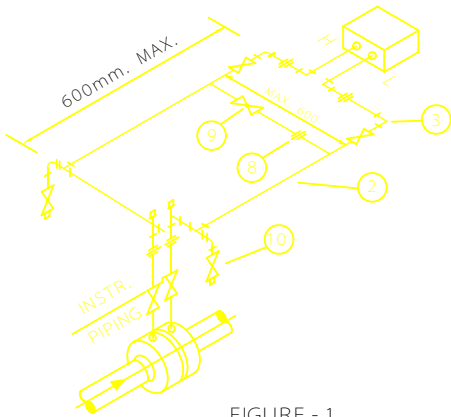


FIGURE - 1
GAS SERVICE

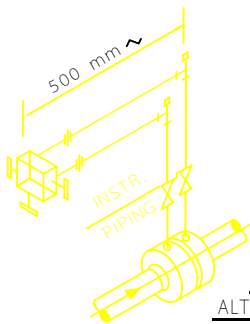


FIGURE - 3
ALTERNATE INSTALLATION

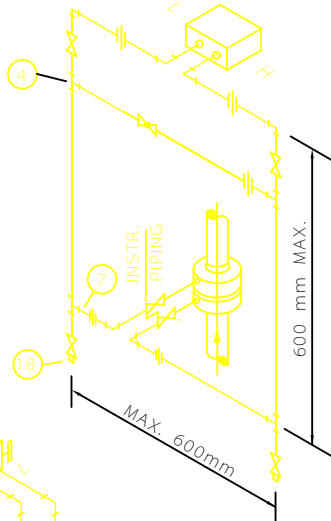


FIGURE - 2

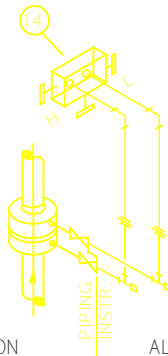


FIGURE - 4
ALTERNATE INSTALLATION

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES :

- 1- FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102
- 2- METER LEADS SHOULD BE AS SHORT AS POSSIBLE, PREFERABLY NOT EXCEEDING THAN 6 METERS.

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REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

**FLOW INSTRUMENT
GAS SERVICE**

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	28	42

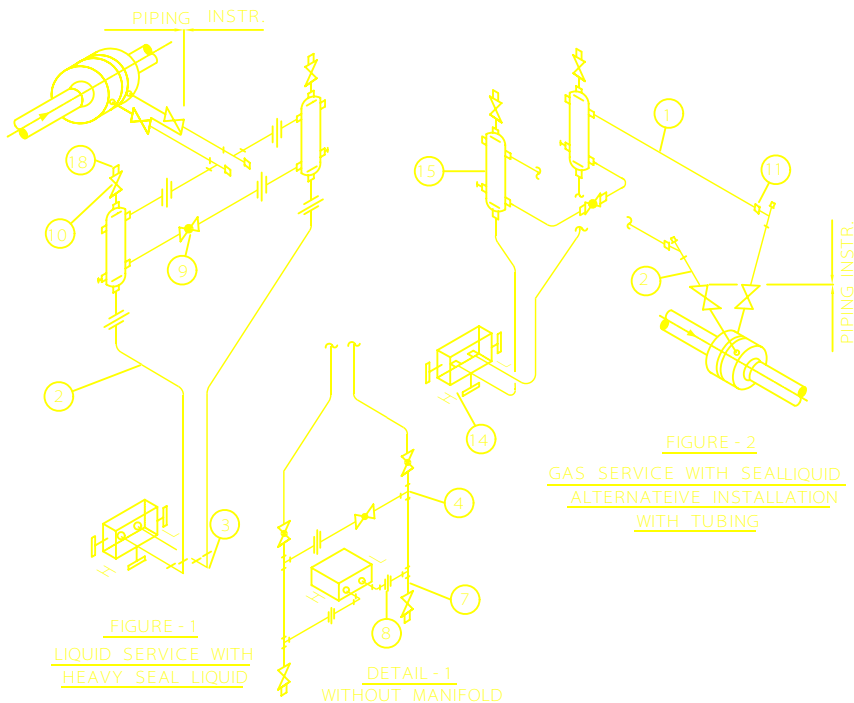


FIGURE - 1
LIQUID SERVICE WITH
HEAVY SEAL LIQUID

DETAIL - 1
WITHOUT MANIFOLD

FIGURE - 2
GAS SERVICE WITH SEALLIQUID
ALTERNATIVE INSTALLATION
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
14		1/2"	MANIFOLD	
15		1/2"	SEAL POT	
18		1/2"	PLUG	

NOTES :

- FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DWG. No. IPS - D - IN - 102
- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.
- METER LEADS SHOULD BE AS SHORT AS POSSIBLE, PREFERABLY NOT EXCEEDING THAN 6 METERS

C		
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A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

FLOW INSTRUMENT
FLOWING LIQUID LIGHTER
THAN SEALING LIQUID

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	27	42

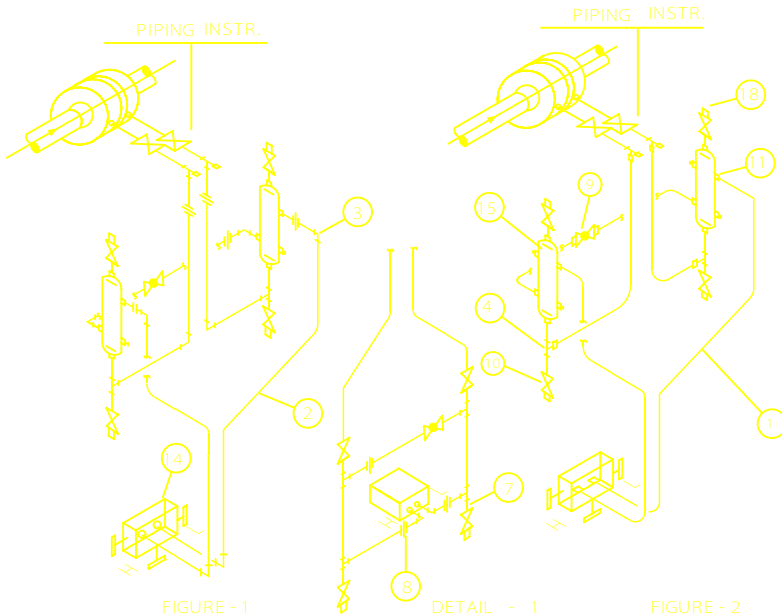


FIGURE - 1
LIQUID SERVICE

DETAIL - 1
WITHOUT MANIFOLD

FIGURE - 2
ALTERNATIVE INSTALLATION
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
14		1/2"	MANIFOLD	
15		1/2"	SEAL POT	
18		1/2"	PLUG	

- NOTES:**
- 1- FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102
 - 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.
 - 3- METER LEADS SHOULD BE AS SHORT AS POSSIBLE, PREFERABLY NOT EXCEEDING THAN 6 METERS
 - 4- METER COULD BE INSTALLED ABOVE ORIFICE TAPS.

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS

NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

FLOWING LIQUID HEAVIER THAN SEALING LIQUID	DATE	DRAWING No.	SHT	REV.
		IPS - D - IN - 104	26	42

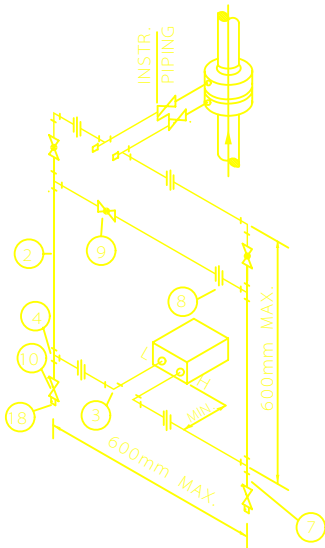


FIGURE - 1



FIGURE - 2

ALTERNATIVE INSTALLATION
WITH MANIFOLD

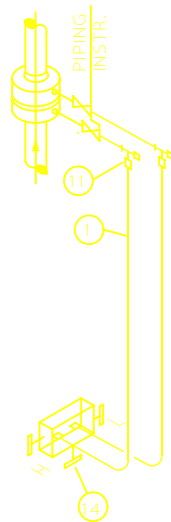


FIGURE - 3

ALTERNATIVE INSTALLATION
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES :

- 1- FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102
- 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.
- 3- METER LEADS SHOULD BE AS SHORT AS POSSIBLE, PREFERABLY NOT EXCEEDING THAN 6 METERS

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

LIQUID, STEAM OR
CONDENSATE VAPOR
SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	25	42

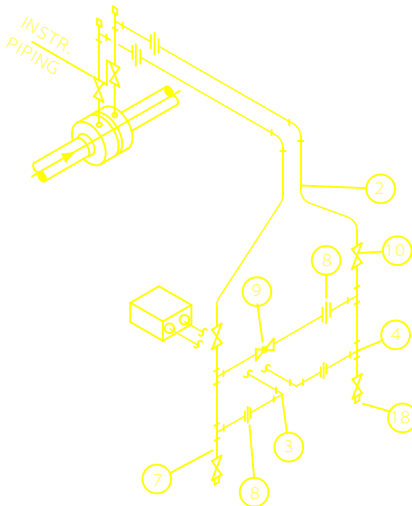


FIGURE - 1
GAS SERVICE

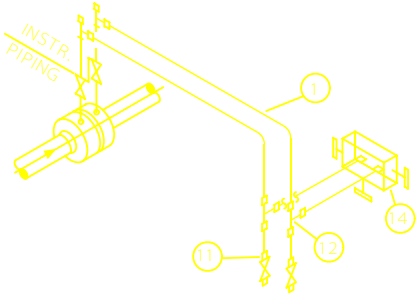
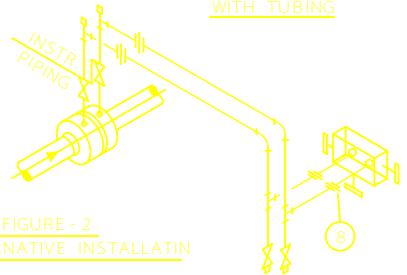


FIGURE - 2
ALTERNATIVE INSTALLATION

FIGURE - 3
ALTERNATIVE INSTALLATION
WITH TUBING



ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
12		1/2"	TEE EQUAL, COMPR. TYPE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES:

- 1 - FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102
- 2 - FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.
- 3 - METER LEADS SHOULD BE AS SHORT AS POSSIBLE, PREFERABLY NOT EXCEEDING THAN 6 METERS

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS

NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

FLOW INSTRUMENT DRY GAS SERVICE	DATE	DRAWING No.	SHT/REV.
		IPS - D - IN - 104	24/42

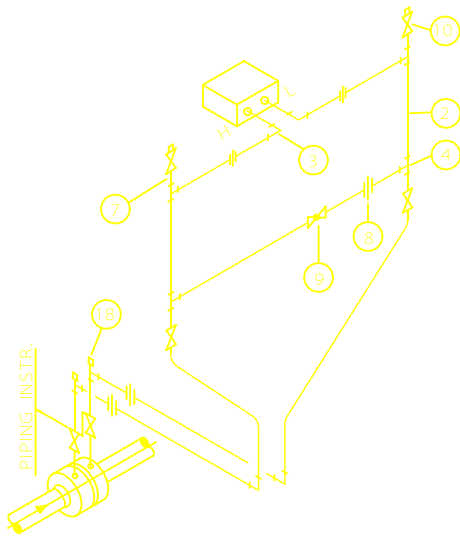


FIGURE - 1
GAS SERVICE

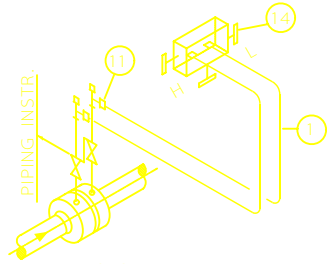
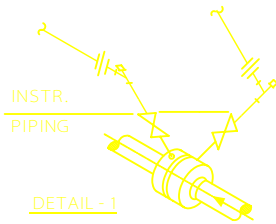


FIGURE - 2
ALTERNATIVE INSTALLATION FOR
GAS SERVICE WITH TUBING



DETAIL - 1
ALTERNATIVE INSTALLATION
FOR GAS

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES:

- 1- FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPD - D - IN - 102
- 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.
- 3- METER LEADS SHOULD BE AS SHORT AS POSSIBLE, PREFERABLY NOT EXCEEDING THAN 6 METERS.

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

**FLOW INSTRUMENT
GAS SERVICE**

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	23	42

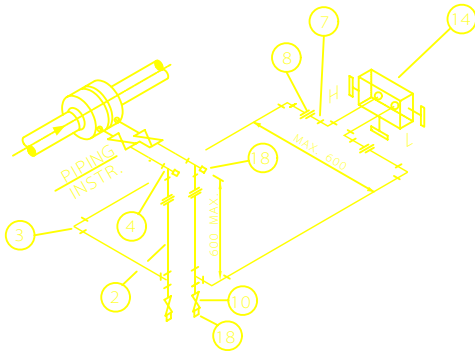
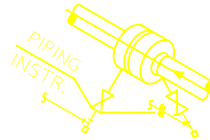


FIGURE - 1
LIQUID SERVICE



DETAIL 1
ALTERNATIVE INSTALLATION
FOR LIQUID SERVICE

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES:

1 - FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS 

NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

FLOW INSTRUMENT
LIQUID, STEAM OR
CONDENSATE SERVICE

DATE

DRAWING No.
IPS - D - IN - 104

SHT/REV.
22/42

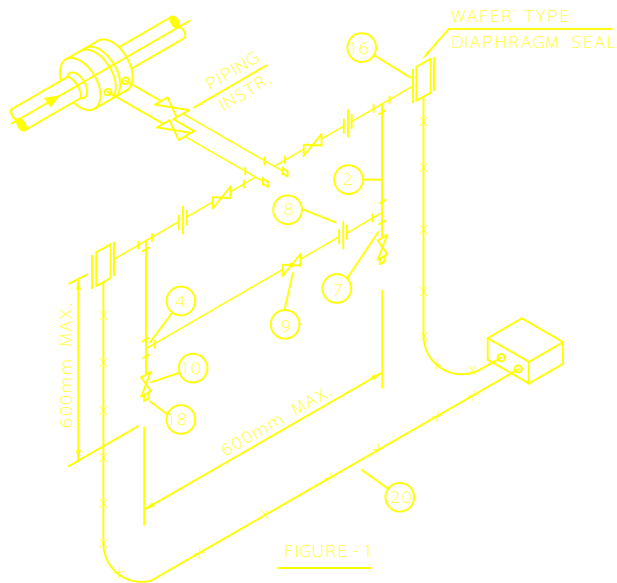


FIGURE - 1

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
4		1/2"	TEE EQUAL	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
16		3"	BLIND FLANGE WITH ABOVE(NOTE-7,8)	
18		1/2"	PLUG	
20		1/2"	CAPILLARY TUBE	

NOTES:

1- FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

FLOW INSTRUMENT
LIQUID, STEAM OR
CONDENSATE SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	21	42

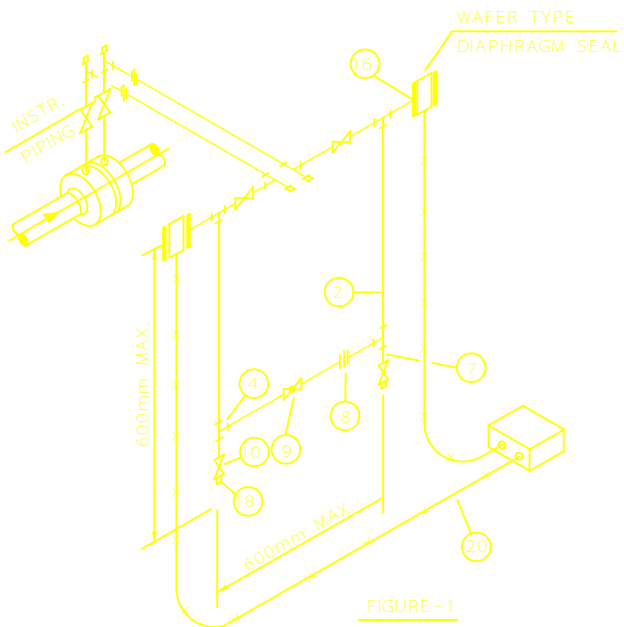


FIGURE - 1

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL	NOTES:
2		1/2"	LINE PIPE MIN. SCHEDULE 40		1- FOR MINIMUM LENGTH OF STRAIGHT RUN OF PIPE REQUIRED ON EACH SIDE OF ORIFICE PLATE SEE STANDARD DRAWING NUMBER IPS - D - IN - 102
4		1/2"	TEE EQUAL		
7		1/2"	NIPPLE		
8		1/2"	UNION		
9		1/2"	GLOBE VALVE		
10		1/2"	GATE VALVE		
16		3"	DIAPHRAGM SEAL WITH FITTINGS		
18		1/2"	PLUG		
20			CAPILLARY TUBE		

C			IRANIAN PETROLEUM STANDARDS 			
B						
A			NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION			
REV	DESCRIPTION	DATE	FLOW INSTRUMENT GAS SERVICE REMOTE SEAL TYPE	DATE	DRAWING No.	SHT/REV.
					IPS - D - IN - 104	20/42

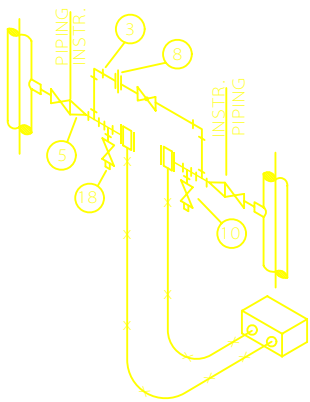


FIGURE - 1
STEAM & GAS SERVICE

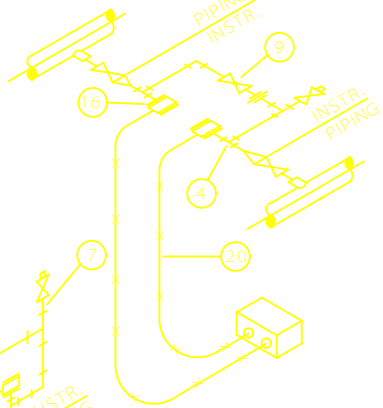


FIGURE - 2
LIQUID SERVICE

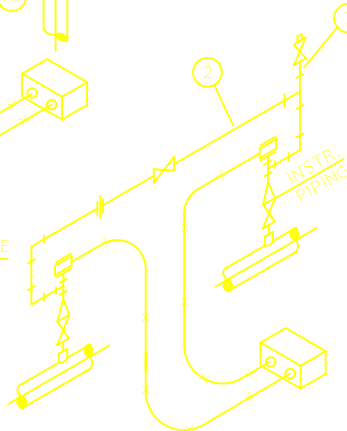


FIGURE - 3
STEAM & GAS SERVICE

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
16		3"	DIAPHRAGM SEAL WITH FITTINGS	
18		1/2"	PLUG	
20			CAPILLARY TUBE	

NOTES :

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

DIFFERENTIAL PRESSURE INSTRUMENT	DATE	DRAWING No.	SHT	REV.
LIQUID, STEAM & GAS SERVICE REMOTE SEAL TYPE		IPS - D - IN - 104	19	42

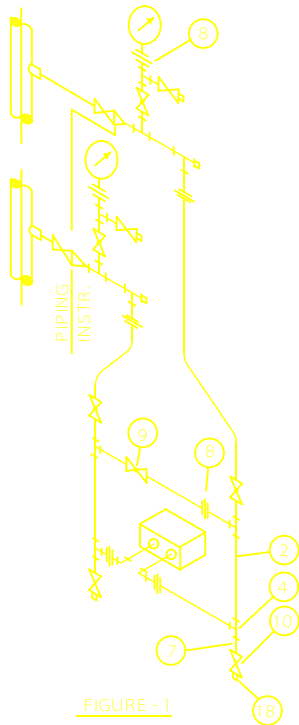


FIGURE - 1
LIQUID SERVICE

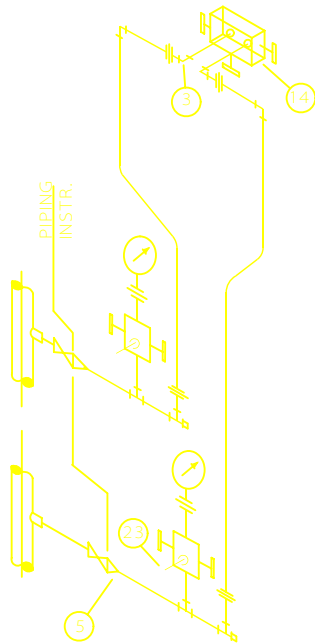


FIGURE - 2
GAS SERVICE

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	
23		1/4"	NIPPLE	

NOTES:

1 - KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

DIFFERENTIAL PRESSURE INSTRUMENT
LIQUID & GAS SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	18	42

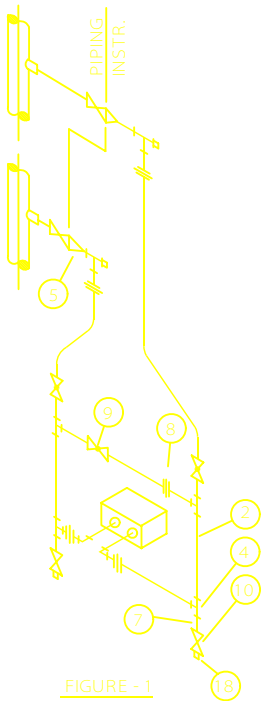


FIGURE -1
LIQUID & STEAM SERVICE

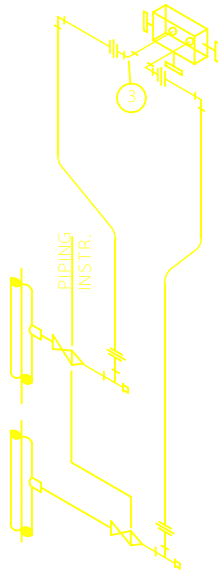


FIGURE -2
GAS SERVICE

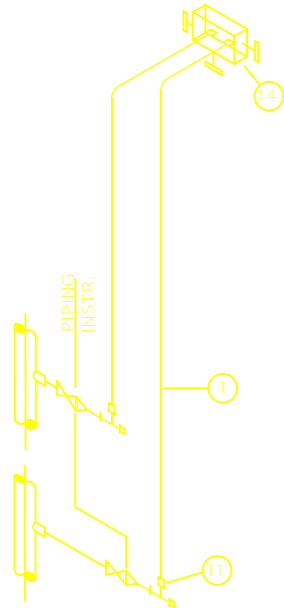


FIGURE -3
GAS SERVICE
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	

NOTES:

- 1- KEEP IMPULSE LINE TO MINIMUM LENGTH
- 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

DIFFERENTIAL PRESSURE INSTRUMENT
LIQUID, STEAM & GAS SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	17	42

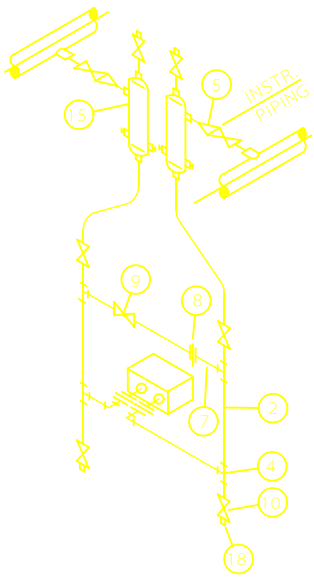


FIGURE -1
LIQUID SERVICE WITH
SEAL LIQUID

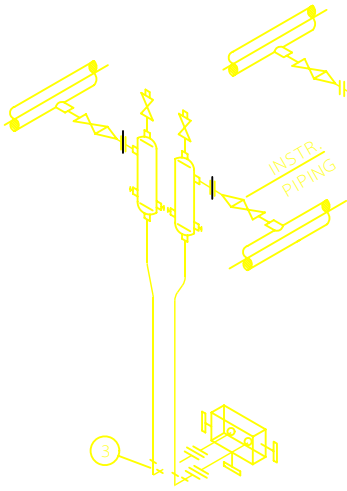


FIGURE -2
ALTERNATIVE INSTALLATION
WITH MANIFOLD

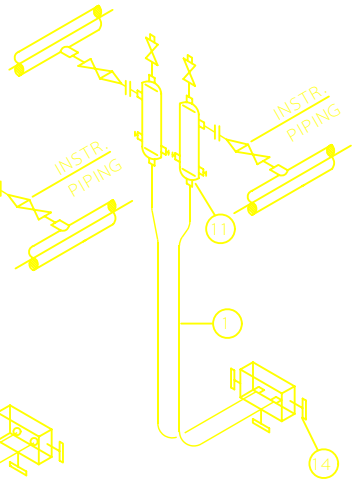


FIGURE -3
ALTERNATIVE INSTALLATION
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYFE	
14		1/2"	MANIFOLD	
15		1/2"	POT	
18		1/2"	PLUG	

NOTES:

- 1- KEEP IMPULSE LINE TO MINIMUM LENGTH
- 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS

NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

DIFFERENTIAL PRESSURE INSTRUMENT LIQUID SERVICES WITH SEAL LIQUID	DATE	DRAWING No.	SHT/REV.
		IPS - D - IN - 104	16 / 42

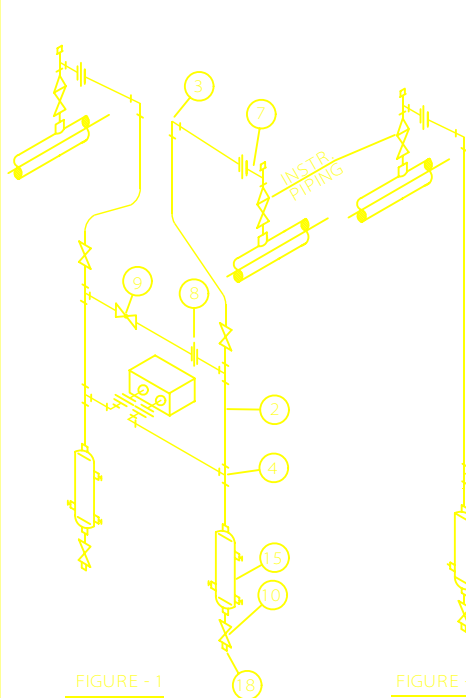


FIGURE - 1

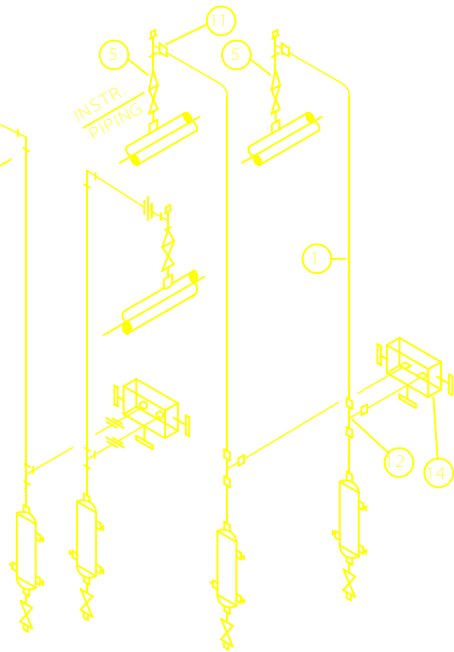


FIGURE - 2

ALTERNATIVE INSTALLATION WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
12		1/2"	TEE EQUAL COMPR. TYPE	
14		1/2"	MANIFOLD	
15		1/2"	CONDENSATE POT	
18		1/2"	PLUG	

NOTES:

- 1- KEEP IMPULSE LINE TO MINIMUM LENGTH
- 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.

C		
B		
A		
REV	DESCRIPTION	DATE

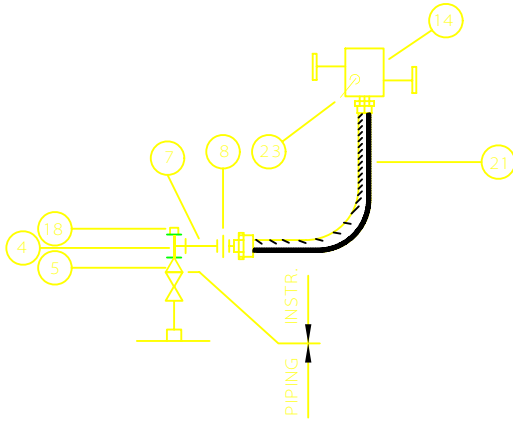
IRANIAN PETROLEUM STANDARDS




NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

GAS SERVICE

DATE	DRAWING No.	SHT/REV.
	IPS - D - IN - 104	15/42



ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL	NOTES:
4		1/2"	TEE EQUAL		1 - KEEP IMPULSE LINE TO MINIMUM LENGTH
5		1"x1/2"	SWAGE NIPPLE		
7		1/2"	NIPPLE		
8		1/2"	UNION		
14		1/2"	MANIFOLD		
18		1/2"	PLUG		
21		1/2"x500	FLEXIBLE HOSE		
23		1/4"	NIPPLE		

C			IRANIAN PETROLEUM STANDARDS 			
B						
A			NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION			
REV	DESCRIPTION	DATE	PRESSURE INSTRUMENT SUBJECT TO EXTREME VIBRATION	DATE	DRAWING No.	SHT/REV.
					IPS - D - IN - 104	14/42

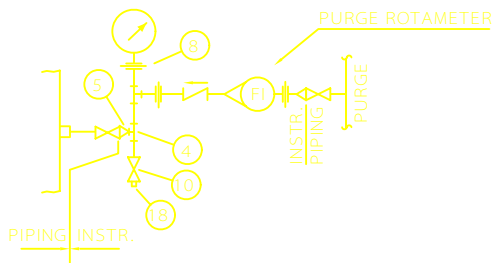


FIGURE - 1
PRESSURE GAUGE
WITH PURGING

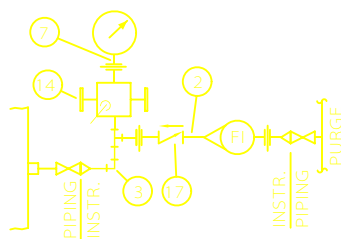


FIGURE - 2
ALTERNATIVE INSTALLATION
WITH MANIFOLD

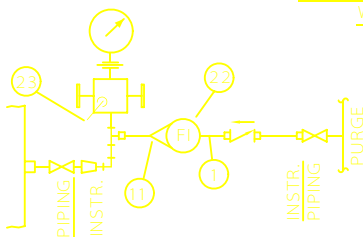



FIGURE - 3
ALTERNATIVE INSTALLATION
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL	NOTES:
1		1/2"	TUBE		1- KEEP IMPULSE LINE TO MINIMUM LENGTH 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.
2		1/2"	LINE PIPE MIN. SCHEDULE 40		
3		1/2"	ELBOW		
4		1/2"	TEE EQUAL		
5		1"x1/2"	SWAGE NIPPLE		
7		1/2"	NIPPLE		
8		1/2"	UNION		
10		1/2"	GATE VALVE		
11		1/2"	CONNECTOR, MALE, COMPR. TYPE		
12		1/2"	TEE EQUAL COMPR. TYPE		
14		1/2"	MANIFOLD		
17		1/2"	CHECK VALVE		
18		1/2"	PLUG		
23		1/4"	NIPPLE		

C			IRANIAN PETROLEUM STANDARDS 			
B						
A			PRESSURE GAUGE WITH PURGING CONNECTED TO VESSEL	DATE	DRAWING No.	SHT/REV.
REV	DESCRIPTION	DATE			IPS - D - IN - 104	13/42

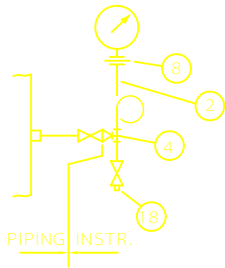


FIGURE - 1

ALTERNATIVE INSTALLATION
WITH SYPHON

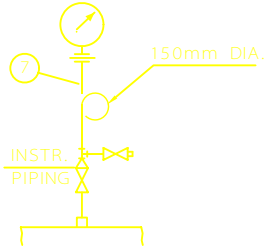


FIGURE - 2

ALTERNATIVE INSTALLATION
WITH MANIFOLD AND SYPHON

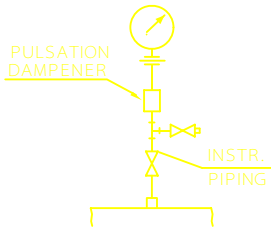


FIGURE - 3

ALTERNATIVE INSTALLATION
WITH PULSATION DAMPENER

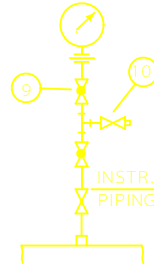


FIGURE - 4

ALTERNATIVE INSTALLATION
FOR HIGH PRESSURE SERVICE

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	
23		1/4"	NIPPLE	

NOTES:

1- KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE GAUGES

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	12	42

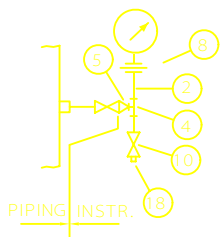


FIGURE - 1
GENERAL SERVICE

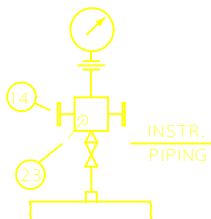


FIGURE - 2
ALTERNATIVE INSTALLATION
WITH MANIFOLD

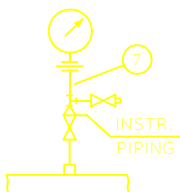


FIGURE - 3
ALTERNATIVE INSTALLATION

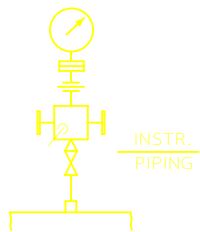


FIGURE - 5
ALTERNATIVE INSTALLATION
WITH DIAPHRAGM SEAL
AND MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	
23		1/4"	NIPPLE	

NOTES:

1 - KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE GAUGE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	11	42

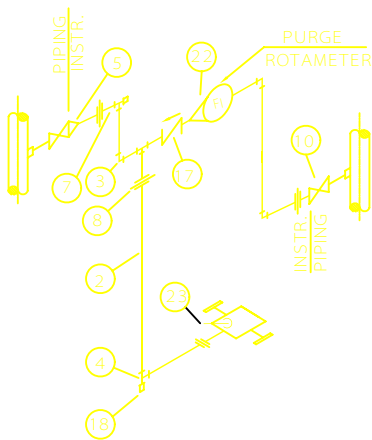


FIGURE - 1
LIQUID SERVICE
WITH PURGING

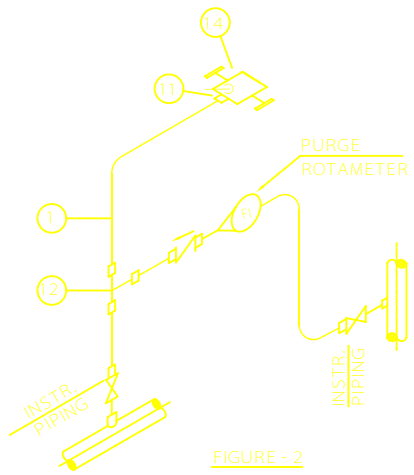


FIGURE - 2
ALTERNATIVE INSTALLATION
WITH TUBING

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE, COMPR. TYPE	
12		1/2"	TEE EQUAL COMPR. TYPE	
14		1/2"	MANIFOLD	
17		1/2"	CHECK VALVE	
18		1/2"	PLUG	
22		1/2"x1/4"	SWAGE NIPPLE	
23		1/4"	NIPPLE	

NOTES:

- 1 - KEEP IMPULSE LINE TO MINIMUM LENGTH
- 2 - FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE INSTRUMENT	DATE	DRAWING No.	SHT	REV.
LIQUID SERVICE WITH PURGING		IPS - D - IN - 104	10	42

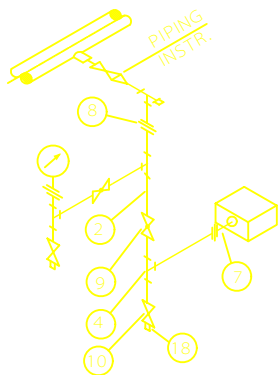


FIGURE -1
LIQUID SERVICE

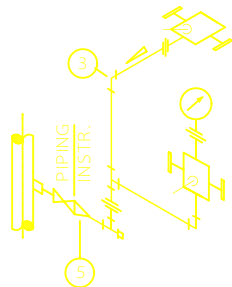


FIGURE -2
GAS SERVICE
WITH MANIFOLD

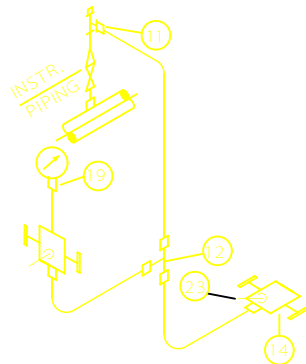
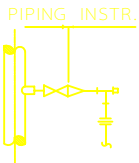
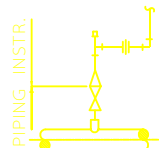


FIGURE -3
GAS SERVICE
WITH TUBING



DETAIL -1
ALTERNATIVE INSTALLATION
FOR LIQUID & STEAM SERVICE



DETAIL -2
ALTERNATIVE INSTALLATION
FOR GAS SERVICE

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
1		1/2"	TUBE	
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
11		1/2"	CONNECTOR, MALE COMPR. TYPE	
12		1/2"	TEE EQUAL COMPR. TYPE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	
19		1/2"	CONNECTOR, FEMALE COMPR. TYPE	
23		1/4"	NIPPLE	

NOTES:

- 1- KEEP IMPULSE LINE TO MINIMUM LENGTH
- 2- FOR IMPULSE PIPING 1/2" PIPE SHOULD BE USED, TUBING MAY ONLY BE USED WHEN SPECIFIED.

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE INSTRUMENT-LIQUID STEAM & GAS SERVICE (TRANSMITTER & GAGE)	DATE	DRAWING No.	SHT/REV.
		IPS - D - IN - 104	8/42

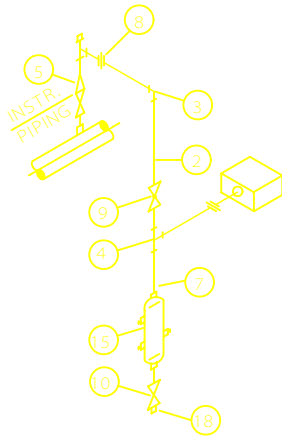


FIGURE - 1
WET GAS

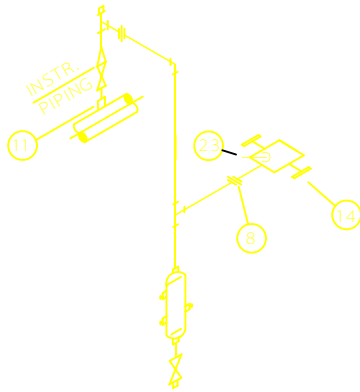


FIGURE - 2
ALTERNATIVE INSTALLATION
WITH MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
15		1/2"	POT	
18		1/2"	PLUG	
23		1/4"	NIPPLE	

NOTES :

1 - KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE INSTRUMENT - WET GAS
SERVICE, METER BELOW LINE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	7	42

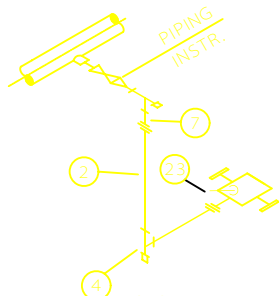


FIGURE - 1
LIQUID SERVICE
WITH MANIFOLD

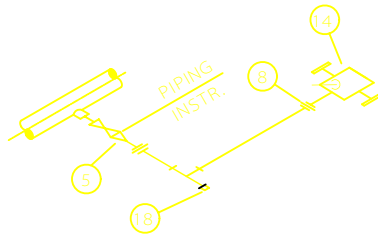


FIGURE - 2
LIQUID ALTERNATIVE TO FIGURE 1
WITH MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	
23		1/4"	NIPPLE	

NOTES :

1 - KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE INSTRUMENT
LIQUID, STEAM & GAS SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	6	42

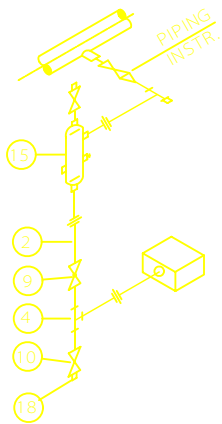


FIGURE -1
LIQUID SERVICE
WITH HEAVY
SEAL LIQUID

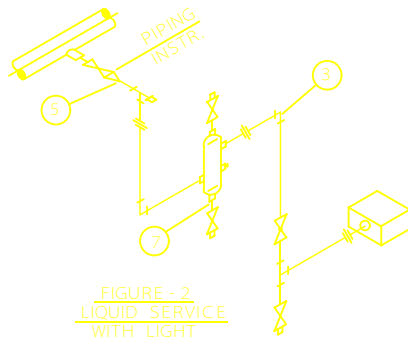


FIGURE -2
LIQUID SERVICE
WITH LIGHT
SEAL LIQUID

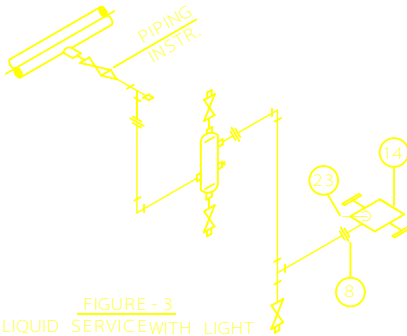


FIGURE -3
LIQUID SERVICE WITH LIGHT
SEAL LIQUID AND MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
15		1/2"	POT	
18		1/2"	PLUG	
23		1/4"	NIPPLE	

NOTES:

1 - KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
B		
A		
REV	DESCRIPTION	DATE

IRANIAN PETROLEUM STANDARDS



NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	5	42

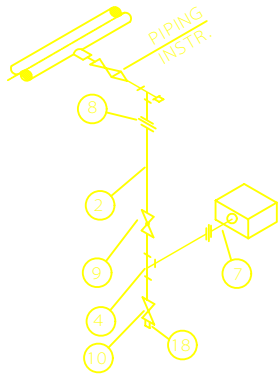


FIGURE - 1
LIQUID SERVICE

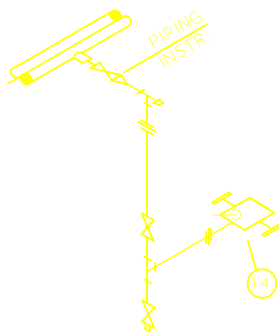


FIGURE - 2
LIQUID SERVICE
WITH MANIFOLD

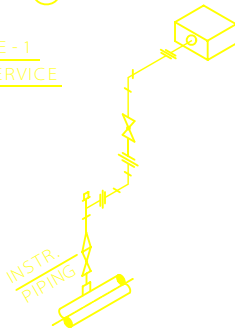


FIGURE - 3
GAS SERVICE

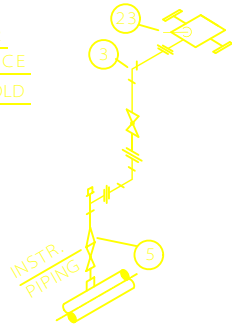


FIGURE - 4
GAS SERVICE
WITH MANIFOLD

ITEM	QTY.	SIZE	DESCRIPTION	MATERIAL
2		1/2"	LINE PIPE MIN. SCHEDULE 40	
3		1/2"	ELBOW	
4		1/2"	TEE EQUAL	
5		1"x1/2"	SWAGE NIPPLE	
7		1/2"	NIPPLE	
8		1/2"	UNION	
9		1/2"	GLOBE VALVE	
10		1/2"	GATE VALVE	
14		1/2"	MANIFOLD	
18		1/2"	PLUG	
23		1/4"	NIPPLE	

NOTES :

1- KEEP IMPULSE LINE TO MINIMUM LENGTH

C		
B		
A		
REV	DESCRIPTION	DATE

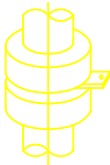
IRANIAN PETROLEUM STANDARDS



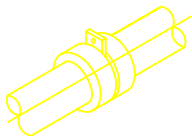
NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION

PRESSURE INSTRUMENT
LIQUID AND GAS SERVICE

DATE	DRAWING No.	SHT	REV.
	IPS - D - IN - 104	4	42



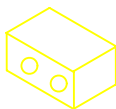
1 - ORIFICE ELEMENT VERTICAL LINE



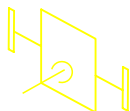
2 - ORIFICE ELEMENT HORIZONTAL LINE



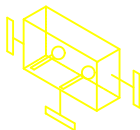
3 - PRESSURE GAUGE



4 - TRANSMITTER



5 - TWO WAY MANIFOLD



6 - THREE WAY MANIFOLD

C			IRANIAN PETROLEUM STANDARDS  NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION			
B						
A						
REV	DESCRIPTION	DATE	INSTRUMENTATION INSTALLATION OF PRESSURE PIPING SYMBOLS FOR PRESSURE PIPING DETAILS	DATE	DRAWING No.	SHT/REV.
					IPS - D - IN - 104	3/42

GENERAL NOTES

- 1 - USE FLANGE IN PLACE OF UNION FOR SOCKET WELD PIPING. FOR HIGH PRESSURE AND CORROSIVE SERVICES.
- 2 - USE CAP IN PLACE OF PLUG FOR HIGH PRESSURE AND CORROSIVE SERVICES.
- 3 - SEAL WELD ALL FITTINGS THREADS FOR HIGH PRESSURE AND CORROSIVE SERVICES EXCEPT SCREWED CONNECTION AT INSTRUMENTS.
- 4 - WHEN PROCESS CONNECTION IS 3/4", USE SWAGE NIPPLE 3/4"x1/2" IN PLACE OF 1"x1/2".FOR VESSELS 1" PROCESS CONNECTION . IS RECOMMENDED
- 5 - ALL SIZES OF PIPES AND FITTINGS ARE IN INCHES,THREADS ARE IN NPT, OTHER DIMENSIONS ARE IN mm.
- 6 - 5 WAY MANIFOLD MAY BE USED FOR PLACES WHERE PROCESS CONDITION NECESSITATES INSTEAD OF 3 WAY MANIFOLD.
- 7 - ALL HORIZONTAL IMPULSE LINES SHOULD HAVE A SLOPE OF 8% TOWARD THE METER FOR LIQUID AND AWAY FROM THE METER FOR GAS SERVICE
- 8 - IMPULSE LINE SHALL BE 1/2" PIPE , 1/2" TUBE MAY BE USED ONLY WHERE SPECIFIED.

C			IRANIAN PETROLEUM STANDARDS 			
B			NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION			
A				DATE	DRAWING No.	SHT/REV.
REV	DESCRIPTION	DATE	INSTRUMENTATION INSTALLATION OF PRESSURE PIPING		IPS - D - IN - 104	2 / 42

INSTRUMENTATION

INSTALLATION OF PRESSURE PIPING

C			IRANIAN PETROLEUM STANDARDS			
B			NO REVISION PERMITTED UNLESS APPROVED BY STANDARD ORGANIZATION			
A			DATE	DRAWING No.	SHT	REV.
REV.	DESCRIPTION	DATE	INSTRUMENTATION INSTALLATION OF PRESSURE PIPING	IPS - D - IN - 104	1	42