



PROPERTY DATA	
TYPE	NATURAL GAS
PHASE	GAZ
DN	10
DESIGN PRESSURE	14000 PSIG (968.75 BAR) / 131.1 / 100
SAFETY FACTOR	1.5
INSPECTION	STRONG
DESIGN	ASME / THIRD PARTY
HYDROTEST	15700 PSIG (1093.75 BAR)
OPERATING	10000 PSIG (689.67 BAR)
PHENUM.	N/A
DESIGN	ASME-B31.3
HYDROTEST	N/A
MAX. OPERATING	30 °C
METAL	-20 °C
FLANG	ASTM A182-F304
PIPE	API 5L-X65
FILLER METAL	ER308 & ER309
WELDING	ASME SECTION VIII DIV 1
WELDING EXAMINATION	100%
WELDING PROCEDURE	ASME SECTION VIII DIV 1
WELDING QUALIFICATION	ASME SECTION VIII DIV 1
WELDING INSPECTION	ASME SECTION VIII DIV 1
WELDING RECORD	ASME SECTION VIII DIV 1



# فلنج مهاري

## ANCHOR FLANGE

**Size: 6" to 56"**  
**Operating Pressure: Up to 2500 psig**

NATIONAL IRANIAN GAS COMPANY  
JAHAD NASR KERMAN  
NAMDARAN PETROGAS INDUSTRIES  
ANCHOR FLANGE 48"x D.812"  
AF-101-7  
GENERAL ASSEMBLY  
888 266  
485 AF DWG.001  
485



Namdaran Petrogas Industries is a leading company in the design and manufacture of process and pipeline equipments to the Oil, Gas and other process industries.

## ANCHOR FLANGE

Anchor flange is an important element in many thrust-control systems, especially those protecting pipeline pumping or gas stations.

Welded into the line and encased in concrete, they immobilize the pipe at predetermined locations and transfer built-up stresses to external structures.

- ⊙ Restraining the movement of pipeline sections is a design factor that must be considered particularly at points of directional change, connections to equipment at meter run locations, at river crossings and for pipe runs at locations of discontinuity of restraint from the earth surrounding the line.

- ⊙ Forged steel anchor flanges are pressure retaining members that butt weld directly into the pipeline and provide an integral "flange" which can transmit restraint from an anchor to the pipeline.



- ⊙ The forces resulting from the restraining anchor are gradually absorbed by the fitting without imposing a concentration of stresses on the pipeline itself.
- ⊙ Anchoring devices can be installed in many different ways to accomplish partial or complete restraint to axial, vertical lateral or twisting forces. Most commonly, they are embedded in a reinforced concrete pit or block.
- ⊙ Anchor flanges are usually forged of carbon steel which can be heat treated to equivalent mechanical properties as that of the mating pipe, or can have the hub thickness (wall) at the welding ends made proportionally thicker than that of the mating higher yield-strength pipe to compensate for the slightly lower mechanical properties of the flange. This increase in wall thickness does not result in any objectionable transition across the weld and has proven itself in countless applications.
- ⊙ Anchor flanges are used installations with a variety of operating service conditions. For maximum economy, anchor flanges should be designed specifically for each application, Accordingly, Namdaran Petrogas Ind. Has established a design method which applies to specific service conditions. These service conditions involve the thrust through which the anchor and pipe will cycle and the allowable bearing stress that can be maintained by the concrete adjacent to the anchor.
- ⊙ Anchor flanges are manufactured to your specifications or we can provide design service for your specific criteria.
- ⊙ The materials supplied from overseas will bear the manufacturer test report; materials that supplied from local market will bear the chemical analysis and mechanical test report from reputable laboratory.



DESIGNER	SOLTANI	RAZZAGH	ZARZADI
CHECKER	SOLTANI	RAZZAGH	ZARZADI
DATE	Drawn by	Checked by	Approved by


**NATIONAL IRANIAN GAS COMPANY**  

**NAMDARAN PETROGAS INDUSTRIES**

**TITLE :** ANCHOR FLANGE 48" x 0.812"  
 AF- 101~7  
 GENERAL ASSEMBLY

PROJ. N°:	8687266	Sheet N°:	1/1
DWG. N°:	485.AF.DWG.001	QTY.:	7
JOB. N°:	485	Scale:	NTS
		Rev.:	1



## ORDERING INFORMATION

The design conditions determine the overall size and shape of the finished flange. So in order to manufacture a flange that meets your design criteria, the following information is required:

- 1) Design code
- 2) Matching pipe nominal size, grade and wall thickness
- 3) Design factor
- 4) Concrete strength
- 5) Maximum, minimum and installation temperature
- 6) Design pressure

## CODE & STANDARDS

- ⊙ Design : ASME Sec. VIII Dev. 1 & 2, ANSI B31.8, B31.3 and B31.4
- ⊙ Fabrication : ASME Sec. VIII
- ⊙ Welding : ASME Sec. IX
- ⊙ NDT : ASME Sec. V



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