



**MANGAN INDUSTRIAL
GROUP**



Forced Draft Fan Reference List





MANGAN INDUSTRIAL GROUP



FD fan/API673/ Reference List

Item	Application	Client/ Site	Flow	Static pressure	Gas Tem.	Motor	Fan speed	Year	Remarks
			m3/hr	Pa	°C	kW	rpm		
1	Boiler FD fan	MAPNA BOILER/ RAZI PETROCHEMICAL	186,918	6,200	55	450	1480	1399	Air foil type
2	Boiler FD fan	MAPNA BOILER/ ESFAHAN REFINARY	206,010	5,022	45	480	1480	1400	Air foil type
3	Boiler FD fan	MAPNA BOILER/ MOKRAN PETROCHEMICAL	208,255	5,882	45	480	1480	1401	Air foil type 4 SET
4	Boiler FD fan	MAPNA BOILER/ KHARK PETROCHEMICAL	59,274	5,419	55	132	1480	1402	Dual drive(electric motor + steam turbine) Air foil type
5	Boiler FD fan	AZARAB BOILER/ KERMANSHAH PETROCHEMICAL	111,199	6,622	45	297	1480	1404	Air foil type
6	Combustion air fan	LORDEGAN PETROCHEMICAL	507,020	8,807	50	1800	990	1398	Dual drive
7	Boiler FD fan	DEBAL KHAZAEI sugar cane	226,000	6,900	45	700	1,480	1379	Dual drive Electric Motor & Steam Turbine



MANGAN INDUSTRIAL GROUP



FD fan/API673/ Reference List

Item	Application	Client/ Site	Flow	Static pressure	Gas Tem.	Motor	Fan speed	Year	Remarks
			m3/hr	Pa	°C	kW	rpm		
8	Boiler FD Fan	MAPNA BOILER FAJR Petrochemical	195,228	5,396	50	800	1,490	1392	<ul style="list-style-type: none">• Site performance measurement• New Impeller Design• Guide vane
9	Boiler FD fan	MAPNA BOILER/ ESFAHAN REFINARY PLANT	208,000	5800	45	450	1490	1401	Air foil type
10	Combustion Air Blower	TEHRAN Refinery	12,311	52,000	40	250	2,980	1388	<ul style="list-style-type: none">• 6 Stage Blower• Forced Oil Lubrication• According to API 672• Ex. Type
11	Combustion Air Blower	PERSIAN GOLF Refinery	13,000	80,000	50	315	26,000	1392	<ul style="list-style-type: none">• High speed integral geared type blower• Forced oil lubrication• According to API 617
12	Recycle Gas Blower	PERSIAN GOLF refinery	4,500	42,000	75	160	4,500	1392	<ul style="list-style-type: none">• Geared Type blower• Forced oil lubrication• According to API 617• Ex. type



MANGAN INDUSTRIAL GROUP



FD fan/API673/ Reference List

Item	Application	Client/ Site	Flow	Static pressure	Gas Tem.	Motor	Fan speed	Year	Remarks
			m3/hr	Pa	°C	kW	rpm		
13	Utility Blower	PERSIAN GOLF refinery	800	80,000	22	22	2980	1392	<ul style="list-style-type: none">• Regenerative type Blower• According to API 673• Ex. type
14	Elutriation N2 Blower	PERSIAN GOLF refinery	600	50,000	150	45	2,980	1392	<ul style="list-style-type: none">• With 5 bar inlet pressure• According to API 673• Ex. Type
15	Reactor FD Blower	PARS carbon black	36,000	55,000	50	750	3,000	1378	<ul style="list-style-type: none">• Forced Oil Lubrication• API 672
16	Carbon Black Blower	PARS carbon black	30,000	10,000	250	160	2980	1385	Stainless Steel Blower
17	Carbon Black transfer Blower	SIMORGH carbon black	17,000	41,800	250	315	4330	1390	<ul style="list-style-type: none">• Stainless steel• forced oil lubrication
18	Main FD Air Blower	KHOZESTAN Steel Co.	210,836	21,608	54	2,500	1,490	1391	<ul style="list-style-type: none">• Forced Oil Lubrication• IGV control• Inlet filter• Inlet silencer



MANGAN INDUSTRIAL GROUP



FD fan/API673/ Reference List

Item	Application	Client/ Site	Flow	Static pressure	Gas Tem.	Motor	Fan speed	Year	Remarks
			m3/hr	Pa	°C	kW	rpm		
									<ul style="list-style-type: none">Outlet silencer
19	Ejector Stack FD Fan	KHOZESTAN Steel Co.	395,640	11,289	54	1,500	1,490	1391	<ul style="list-style-type: none">Forced Oil LubricationInlet silencer
20	Auxiliary FD air fan	KHOZESTAN Steel Co.	30,926	12,800	54	160	1,480	1391	<ul style="list-style-type: none">IGV controlInlet silencer
21	Dilution FD air fan	KHOZESTAN Steel Co.	30,926	12,800	54	160	1,480	1391	<ul style="list-style-type: none">IGV controlInlet silencer
22	Auxiliary Air Fan	GOLEGOHAR DRI plant	78,225	12,475	50	400	1,490	1390	<ul style="list-style-type: none">With IGV controlinlet silencer
23	Dilution Air Fan	GOLEGOHAR DRI plant	78,225	12,475	50	400	1,490	1390	<ul style="list-style-type: none">With IGV controlinlet silencer
24	Auxiliary Air Fan	ARDAKAN DRI plant	66,994	12,403	45	355	1,490	1391	<ul style="list-style-type: none">With IGVInlet silencer



MANGAN INDUSTRIAL GROUP



FD fan/API673/ Reference List

Item	Application	Client/ Site	Flow	Static pressure	Gas Tem.	Motor	Fan speed	Year	Remarks
			m3/hr	Pa	°C	kW	rpm		
25	Dilution Air Fan	ARDAKAN DRI plant	66,994	12,403	45	355	1,490	1391	<ul style="list-style-type: none">• With IGV• Inlet silencer
26	Kiln burner Primary air fan	KHAZER cement	8,895	26,800	35	110	2,980	1392	Two stage fan
27	Kiln burner Primary air fan	NAHAVAND Cement Co.	8,640	26,612	30	110	2980	1391	Two stage Fan



MANGAN INDUSTRIAL GROUP

021-66803364 , 66801375



BOILER FD FAN

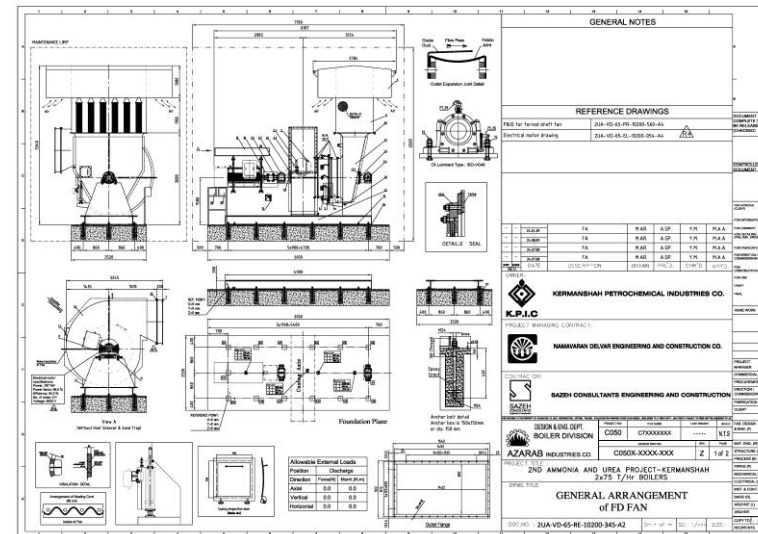


MANGAN SHOP PERFORMANCE TEST



Volume Flow	m ³ /hr	111,199
Total differential Pressure	Pa	6,622
Fan Speed	rpm	1,480
Drive Power	kW	297
Application	Boiler FD fan	
End user	AZARAB BOILER_KERMANSHAH PETROCHEMICAL PLANT	

- Air foil blades impeller





MANGAN INDUSTRIAL GROUP

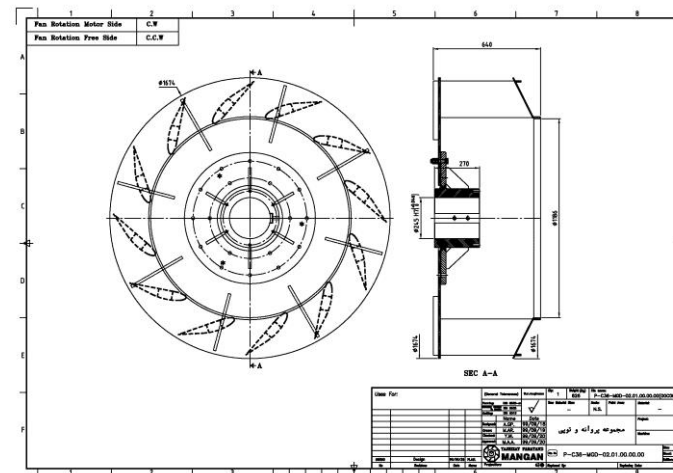
021-66803364 , 66801375



BOILER FD FAN



Volume Flow	m ³ /hr	206,010
Total differential Pressure	Pa	5,022
Fan Speed	rpm	1480
Motor Power	kW	480
Application	Boiler FD fan	
End user	MAPNA BOILER ESFAHAN OIL REFINARY	
Air foil blades impeller		





MANGAN INDUSTRIAL GROUP

021-66803364 , 66801375



BOILER FD FAN

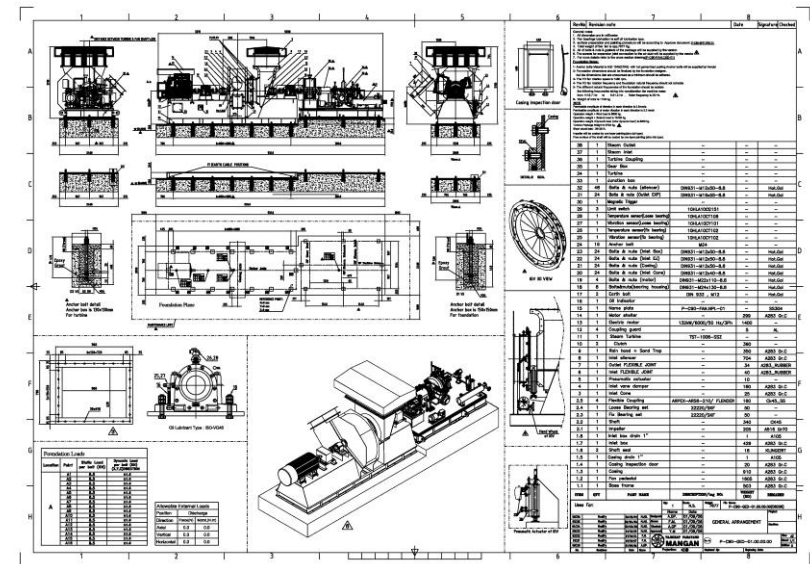


MANGAN SHOP PERFORMANCE TEST



Volume Flow	m ³ /hr	59,274
Total differential Pressure	Pa	5,419
Fan Speed	rpm	1,480
Drive Power	kW	132
Application	Boiler FD fan	
End user	MAPNA BOILER_KHARK PETROCHEMICAL PLANT	

- **Dual drive (electric motor+ steam turbine)**
- Air foil blades impeller





MANGAN INDUSTRIAL GROUP

021-66803364,66801375



BOILER FD FAN

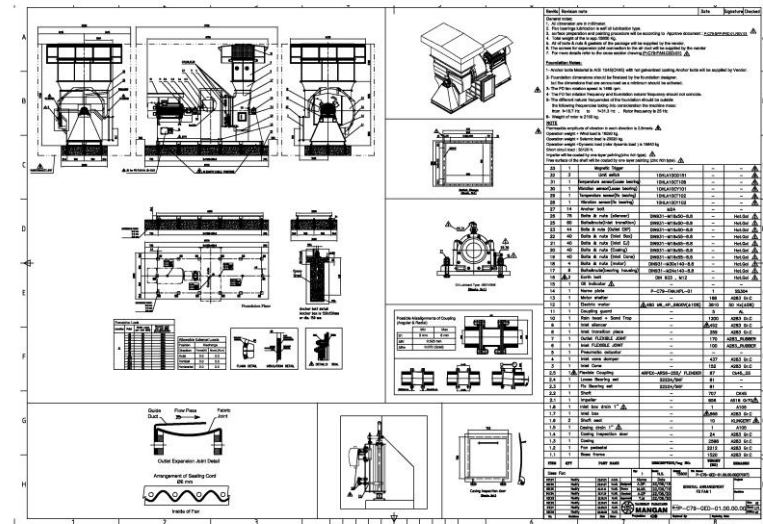


MANGAN SHOP PERFORMANCE TEST



Volume Flow	m ³ /hr	208,255
Total differential Pressure	Pa	5,882
Fan Speed	rpm	1,480
Motor Power	kW	480
Application	Boiler FD fan	
End user	MAPNA BOILER_MOKRAN PETROCHEMICAL PLANT	

- 4 SET
- Air foil blades impeller





MANGAN INDUSTRIAL GROUP

021-66803364,66801375

BOILER FD FAN



MANGAN SHOP PERFORMANCE TEST



Volume Flow	m ³ /hr	186,918
Total differential Pressure	Pa	6,100
Fan Speed	rpm	1,480
Motor Power	kW	450
Application	Boiler FD fan	
End user	MAPNA BOILER_RAZI PETROCHEMICAL PLANT	
Air foil blades impeller		

