

## MGT 70

In ISO conditions, this turbine has an output of 162 MW. PARTO is manufacturing all the blades and vanes of this turbine under the license from Siemens.

In order to increase power output and efficiency of MGT70 turbines during recent years, MAPNA group initiated three large projects, namely MGT70(1), MGT70(2) , MGT70(3) and MGT70(4) which led to increase the output and efficiency of this turbine to 181MW.

Type		Material	Weight	Coat	Cooling	No. In row
First Stage Blade	MGT 70	IN 738 LC	3.5 Kg	MCrAlY	Yes	89
	MAP2 + MGT70 (1)	IN 738 LC	3.6 kg	MCrAlY + TBC	Yes	89
	MAP2 A MGT70 (2)	IN 738 LC	3.6 kg	MCrAlY + TBC	Yes	89
	MAP2 B MGT70 (3)	Rene 80	4 kg	MCrAlY + TBC	Yes	89
Second Stage Blade	MGT 70	IN 738 LC	5 Kg	MCrAlY	Yes	89
	MAP2 + MGT70 (1)	IN 738 LC	5 Kg	MCrAlY	Yes	89
	MAP2 A MGT70 (2)	IN 738 LC	5 Kg	MCrAlY + TBC	Yes	89
	MAP2 B MGT70 (3)	Rene 80	4.7 kg	MCrAlY + TBC	Yes	89
Third Stage Blade	MGT 70	IN 738 LC	14 Kg	MCrAlY	No	63
	MAP2 + MGT70 (1)	IN 738 LC	14 Kg	MCrAlY	NO	63
	MAP2 A MGT70 (2)	IN 738 LC	14 Kg	MCrAlY	No	63
	MAP2 B MGT70 (3)	Rene 80	14.1 Kg	MCrAlY	NO	63
Fourth Stage Blade	MGT 70	IN 738 LC	31 Kg	No	No	44
	MAP2 + MGT70 (1)	IN 738 LC	31 Kg	NO	No	44
	MAP2 A MGT70 (2)	IN 738 LC	31 Kg	NO	No	44
	MAP2 B MGT70 (3)	Rene 80	25.3 Kg	NO	No	44



MGT70(3)- Vane Stage 2



MGT70(3)- Blade Stage 2



MGT70(3)- Blade Stage 3



MGT70(3)- Blade Stage 4

## MGT 70

Type		Material	Weight	Coat	Cooling	No. In row
First Stage Vane	MGT 70	IN 738 LC	17 Kg	MCrAlY	Yes	46
	MAP2 + MGT70 (1)	IN 738 LC	17 kg	MCrAlY + TBC	Yes	46
	MAP2 A MGT70 (2)	IN 738 LC	17 kg	MCrAlY + TBC	Yes	46
	MAP2 B MGT70 (3)	Rene 80	16.8 kg	MCrAlY + TBC	Yes	46
Second Stage Vane	MGT 70	IN 738 LC	13.5 Kg	MCrAlY	Yes	48
	MAP2 + MGT70 (1)	IN 738 LC	13.5 Kg	MCrAlY + TBC	Yes	48
	MAP2 A MGT70 (2)	IN 738 LC	13.5 Kg	MCrAlY + TBC	Yes	48
	MAP2 B MGT70 (3)	Rene 80	13.3 kg	MCrAlY + TBC	Yes	48
Third Stage Vane	MGT 70	IN 738 LC	15.5 Kg	NO	yes	51
	MAP2 + MGT70 (1)	IN 738 LC	15.7 Kg	MCrAlY	yes	51
	MAP2 A MGT70 (2)	IN 738 LC	15.7 Kg	MCrAlY	yes	51
	MAP2 B MGT70 (3)	Rene 80	15.3 Kg	MCrAlY + TBC	yes	51
Fourth Stage Vane	MGT 70	IN 792 LC	24 Kg	No	No	55
	MAP2 + MGT70 (1)	IN 792 LC	24 Kg	NO	No	55
	MAP2 A MGT70 (2)	IN 792 LC	24 Kg	NO	No	55
	MAP2 B MGT70 (3)	Rene 80	25.8 Kg	NO	No	55
Swirler	All Type	Hatelloy X	2.5 Kg	No	No	16



MGT 70 -Vane Stage 1



MGT70- Vane Stage 2



MGT70(3)- Vane Stage 3



MGT70- Vane Stage 3



MGT70(3)- Vane Stage 1



MGT70(3)- Vane Stage 2



MGT70- Vane Stage 4



MGT 70 - Swirler