



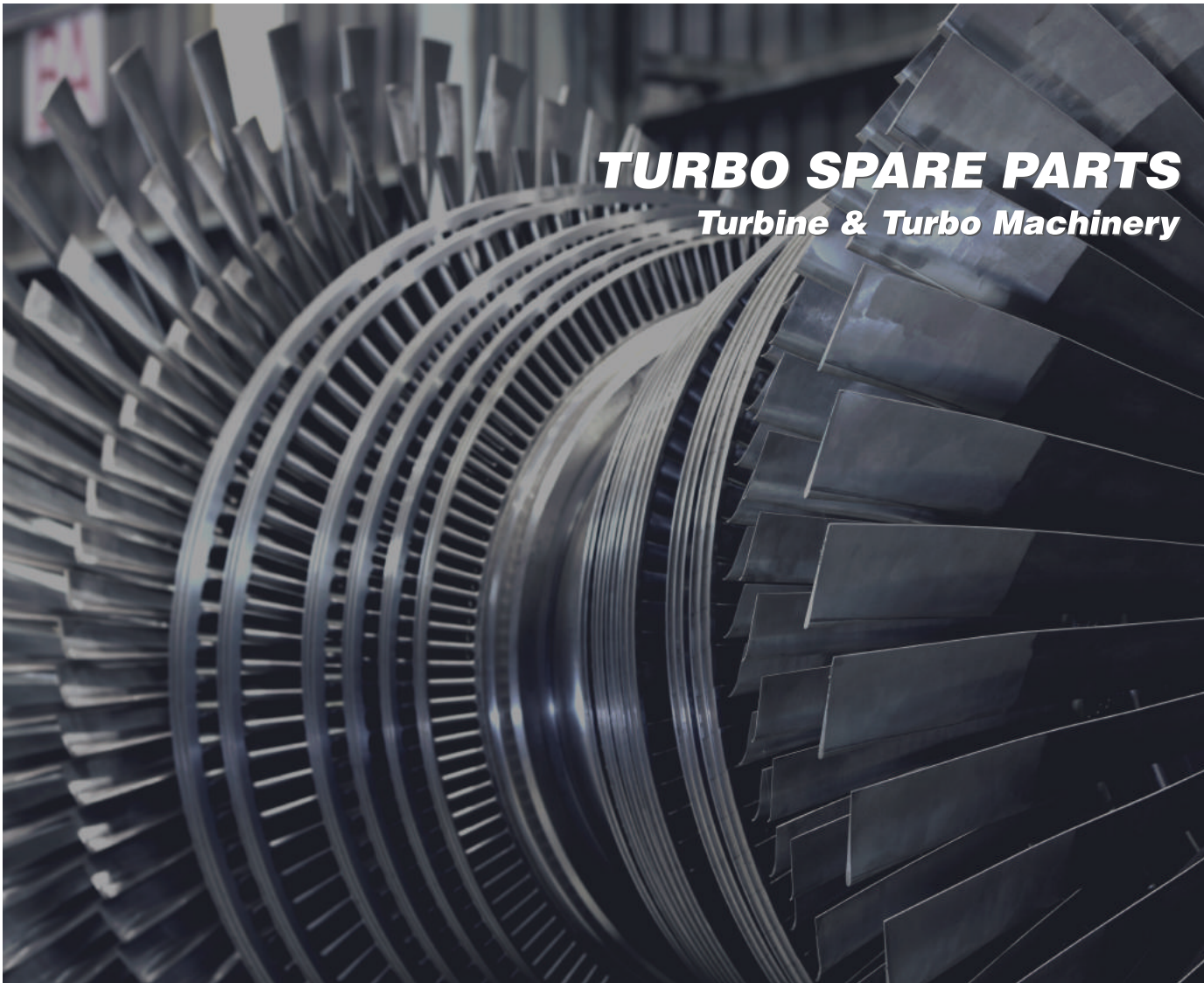
FLOWDY

Flow & Dynamic

Turbo Parts Specialist

TURBO SPARE PARTS

Turbine & Turbo Machinery



TURBO SPARE PARTS

Turbine & Turbo Machinery

Global Network

UK

INDIA

USA

MEXICO

GERMANY

CHINA

CANADA

BRAZIL

FRANCE

THAILAND

KOREA

ITALY

MALAYSIA

JAPAN

SWISS

SINGAPORE

CZECH

INDONESIA



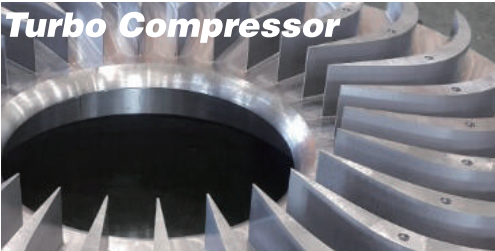
Contents

Turbo spare parts

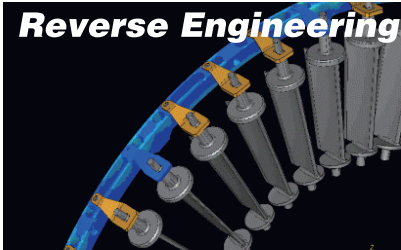
Capabilities



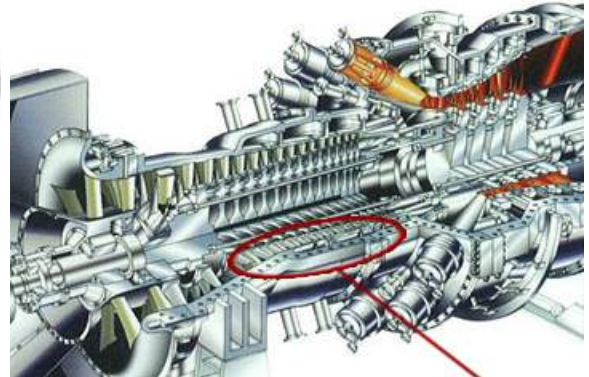
Turbo Compressor



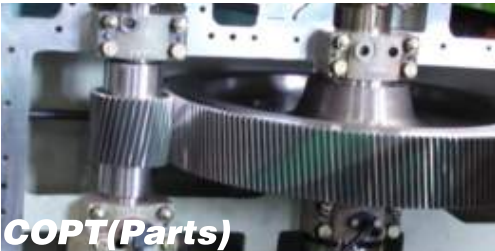
Reverse Engineering



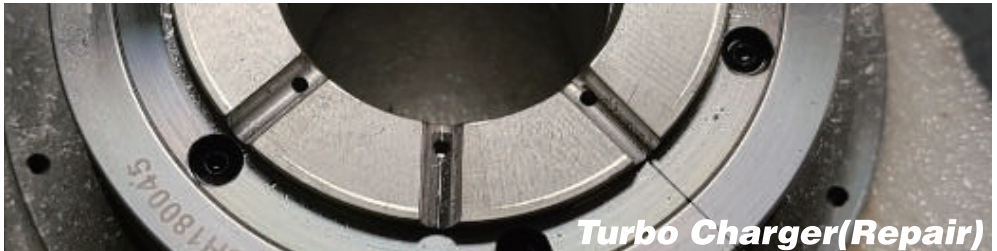
Gas / Steam Turbine



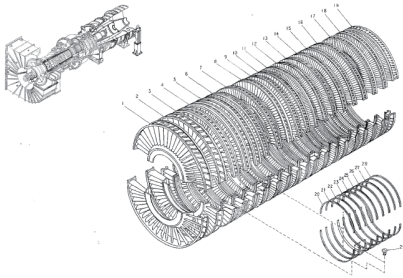
COPT(Parts)



Turbo Charger(Repair)



Gas Turbine



Diaphragm / Vane



Gas Turbine Rotor

Spare parts & Repair

Compressor (Cold Section)

IGV(VSV), Blade, Vane(Diaphragm), OGV

GE

- Frame 5, 6, 7, 9 Compressor (7EA, 7FA+, 7FA+e....)
- Frame 7 Fan Blade(Generator)

MHI

- M501F, M501G(GAC)

WESTING HOUSE

- W501D5
- W501F

SIEMENS

- 94.3A

Other OEM model available

Steam Turbine

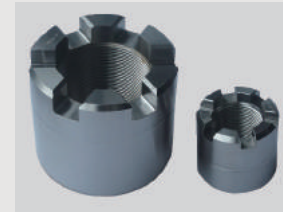
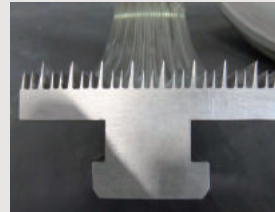
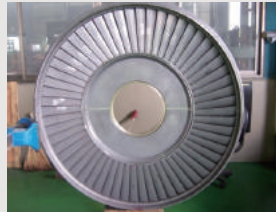


Steam Turbine Rotor

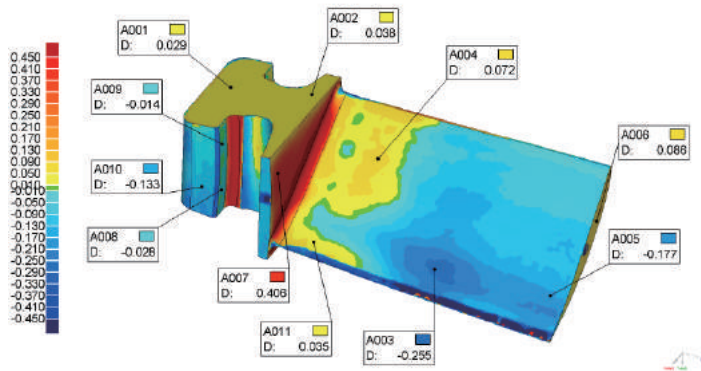
Spare parts & Repair

All of Parts Available

- Blade / Diaphragm
 - HP / IP / LP
- Packing Ring & Segment
- Spill Strip
- Casing Bolt / Nut
- Bearing

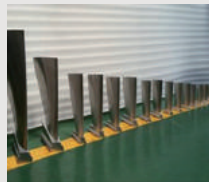


Reverse Engineering



Pre-Order Information

- Sample – 3pcs (Used or New one)
- Required Delivery
- Material info.
- Order purpose (for replacement or upgrade...)



Reverse Engineering

Blade Reverse Engineering Process - GT/ST

Blade Sample

Inspection/Measuring

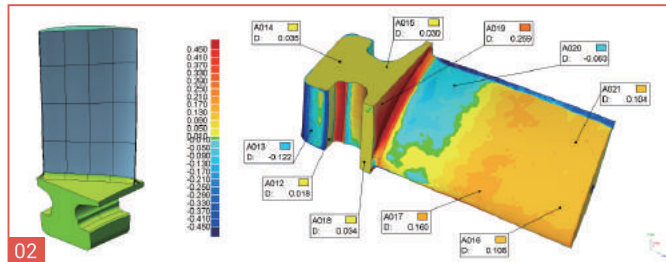
Drawing

Prototype

Assembly

Balancing

Delivery



Units : mm

Name	Dev	Status	Tol+	Tol-	Ref X	Ref Y	Ref Z	Dev Radius	Dev X	Dev Y	Dev Z	Test X	Test Y	Test Z
A012	0.017				-19.978	-14.817	-0.494	1.000	0.000	-0.001	0.018	-19.978	-14.819	-0.476
A013	-0.122				-24.000	-10.198	-9.085	1.000	0.122	0.000	-0.000	-23.878	-10.198	-9.085
A014	0.035				0.359	19.336	-7.636	1.000	0.000	0.035	-0.003	0.359	19.371	-7.639
A015	0.030				7.456	21.443	15.777	1.000	0.000	0.030	-0.003	7.456	21.473	15.774
A016	0.106				-10.712	-7.252	129.972	1.000	-0.086	0.062	0.004	-10.798	-7.189	129.976
A017	0.160				-16.528	-12.088	86.001	1.000	-0.132	0.090	0.009	-16.660	-11.998	86.010
A018	0.034				-24.350	-16.301	22.915	1.000	-0.034	0.000	0.000	-24.384	-16.301	22.915
A019	0.259				-15.470	18.020	26.749	1.000	0.000	0.019	0.259	-15.470	18.039	27.008
A020	-0.063				19.314	15.968	48.980	1.000	0.020	-0.059	0.005	19.334	15.909	48.985
A021	0.104				12.658	17.267	124.514	1.000	-0.062	0.083	-0.004	12.596	17.350	124.509

Reverse Engineering Samples

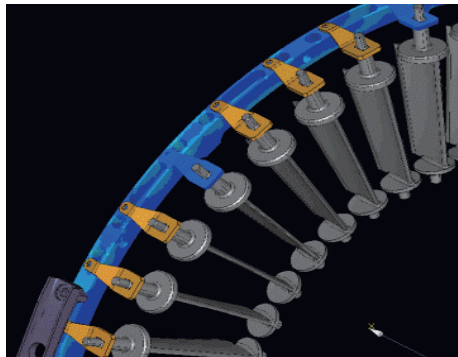
- Gas Turbine IGV



OEM



FlowDy



- Gas Turbine Compressor Vane



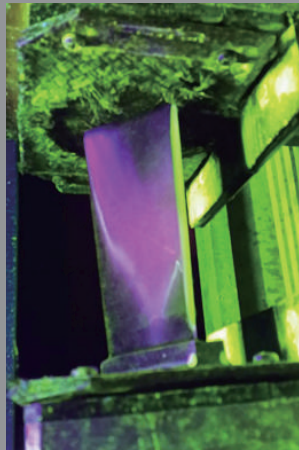
OEM



FlowDy



Balancing



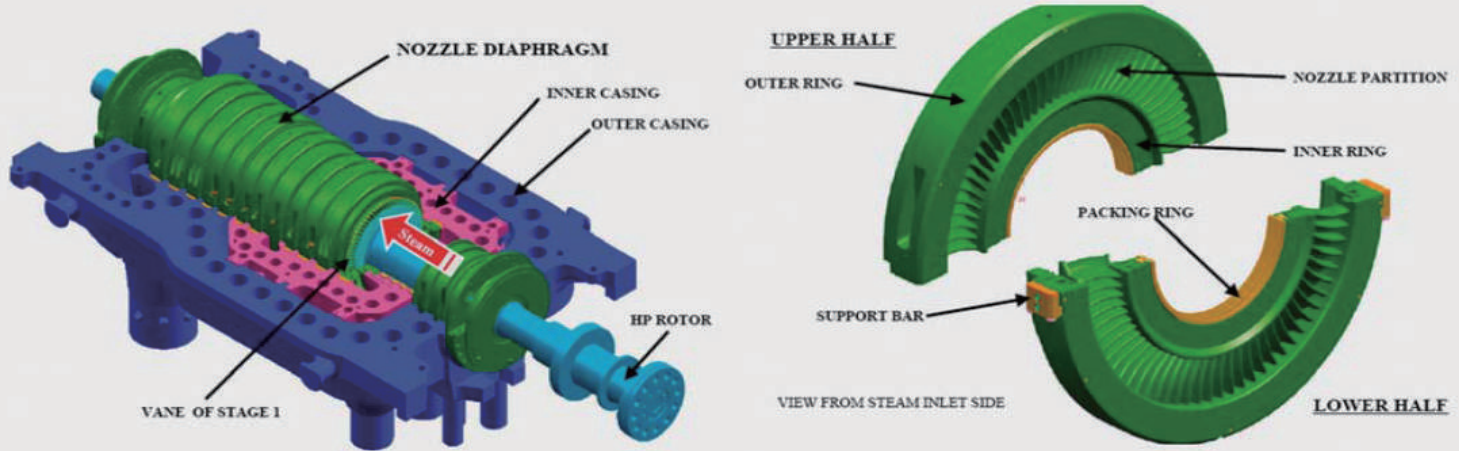
NDE - MT, PT, UT



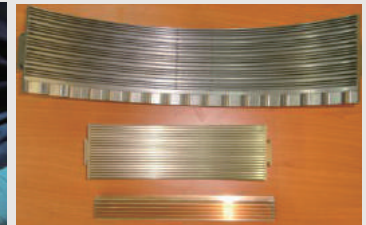
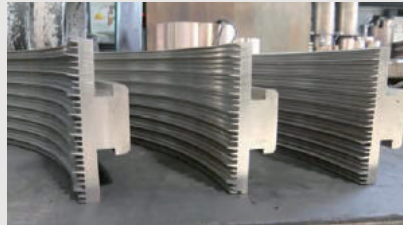
CMM

Diaphragm

Packing Ring / Spill Strip / Labyrinth Seal / Rings



Packing Ring

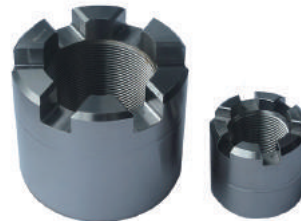
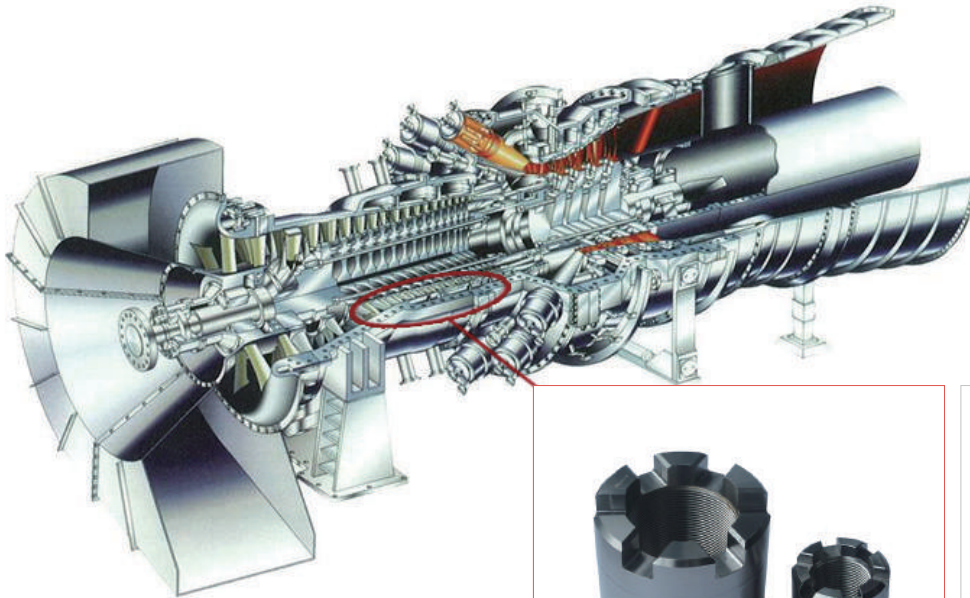


Other Parts

Bolt / Nut / Other



Nut



Slotted Nut



Covered Nut

Driving Turbine

Assembly



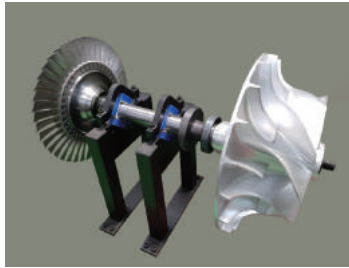
Turbo Charger (Repair)

Impeller / Nozzle

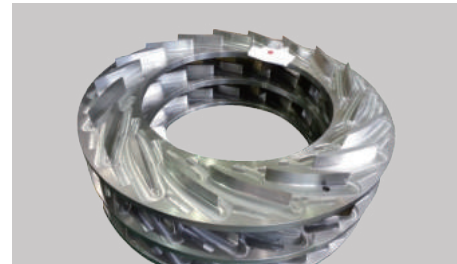
• Used



• New



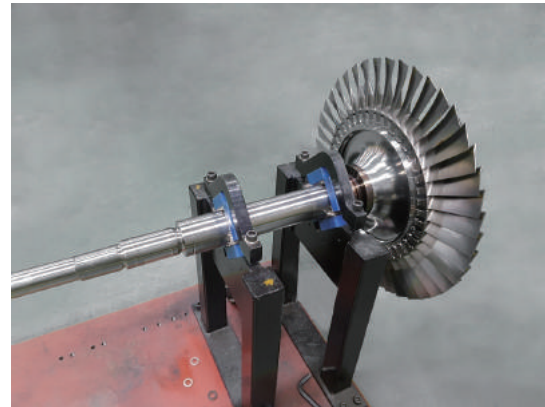
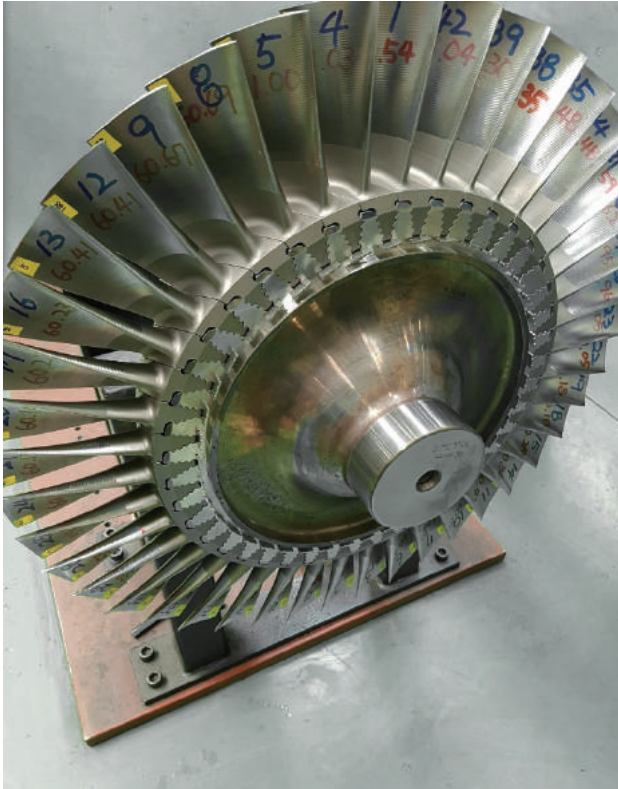
• Nozzle ring & Diffuser



Turbo Charger (Repair)

Blade

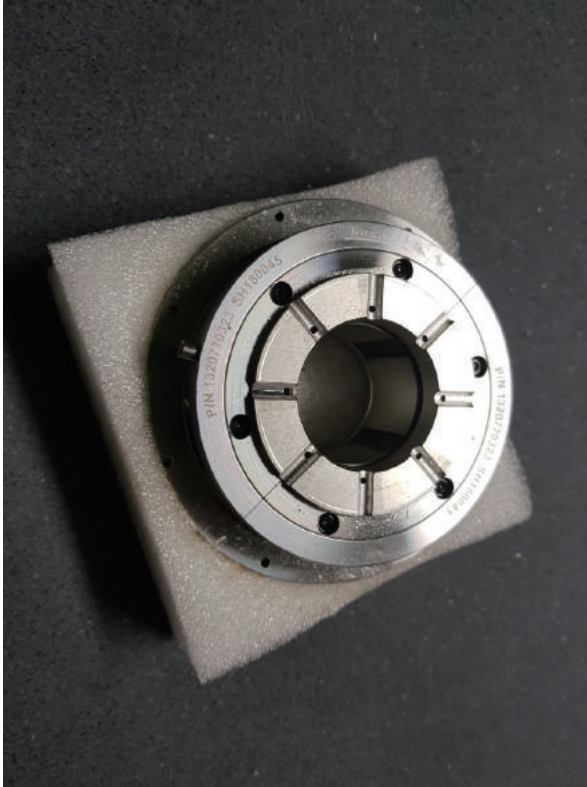
- Rotor



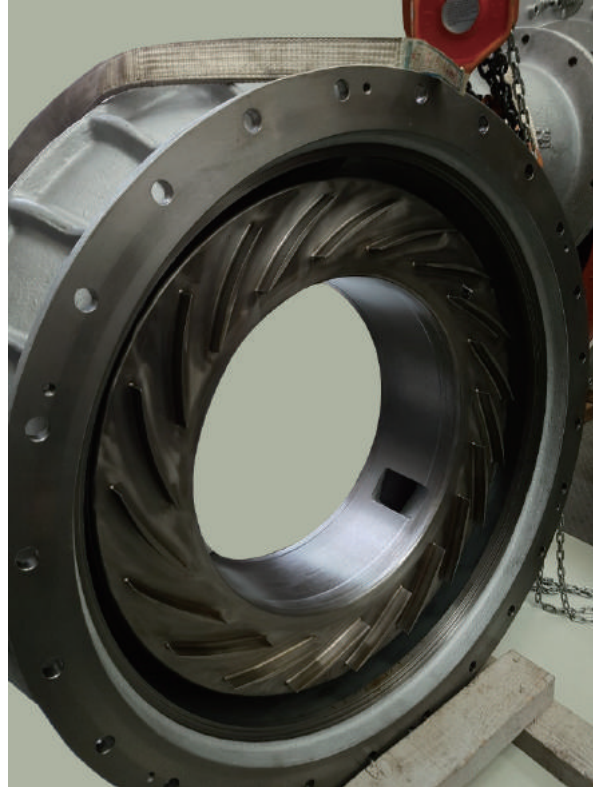
Turbo Charger (Repair)

Rotating Parts

- Bearing



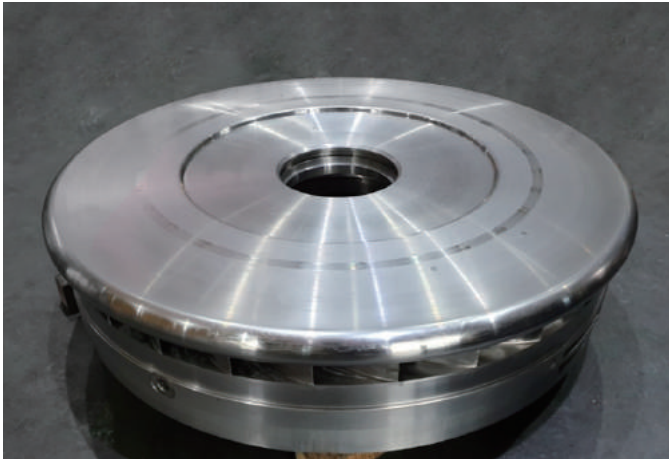
- Diffuser



Turbo Compressor

Diaphragm / Impeller

• Assembly



• Disk



Impeller

Open / Closed



Gas Turbine - Hot Part

