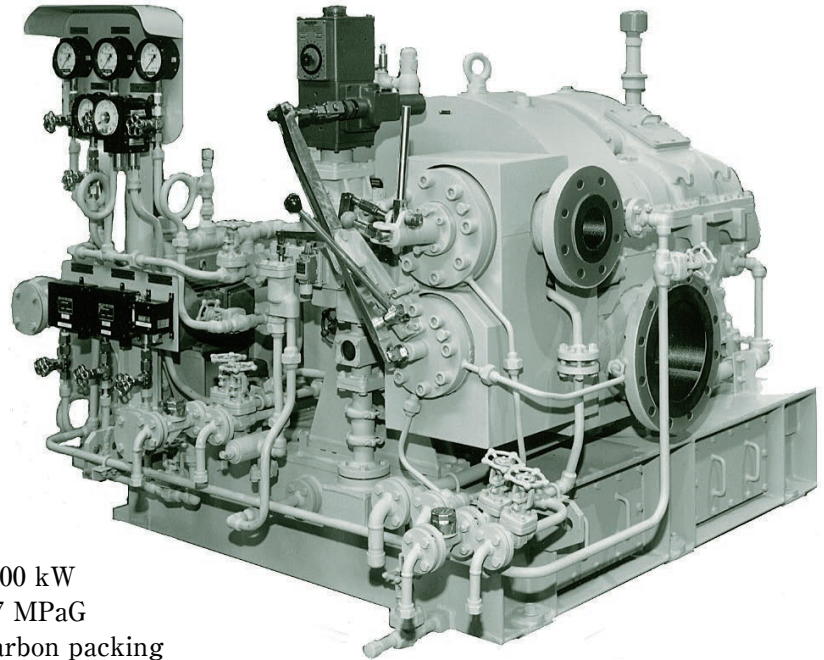


# Curtis single-stage with reduction gear **STEAM TURBINES**



**■ APPLICATIONS**

- Sugar mills
- Cane knives
- Small generators
- Pumps
- Force draft fans
- Induced draft fans
- Others



**■ SPECIFICATIONS**

- Max. output ..... 1000 kW
- Max. exhaust steam pressure .. 0.7 MPaG
- Gland seal ..... Carbon packing
- Lubrication system ..... Forced lubrication

**■ GENERAL CHARACTERISTICS**

Item	Model	DDG 42	DDG 61	DDG 81	DDG 42A	DDG 61A	DDG 81A
Max. output	(kW)	350	600	1000	350	600	1000
Max. speed (turbine shaft)	(rpm)	5000	5000	4200	5000	5000	4200
Direction of rotation (output shaft)		CCW facing turbine toward driven machine					
Max. inlet steam pressure	(MPaG)	6.2					
Max. inlet steam temperature	(°C)	510					
Max. exhaust steam pressure	(MPaG)	0.5			0.7		
Steam inlet bore	(mm)	80	100	150	80	100	150
Steam exhaust bore	(mm)	150	200	300	150	200	300
Lubrication system		Forced lubrication					
Main LO pump	(m <sup>3</sup> /h x MPaG)	6.0 ~ 9.0 x 0.2					
Aux. LO pump	(m <sup>3</sup> /h x MPaG)	6.0 ~ 9.0 x 0.2					
Governor		Woodward UG or PG					
Hand nozzle valve		Available according to requirement					
Min. weight (with baseplate)	(kg)	2800	3450	4600	2810	3460	4650

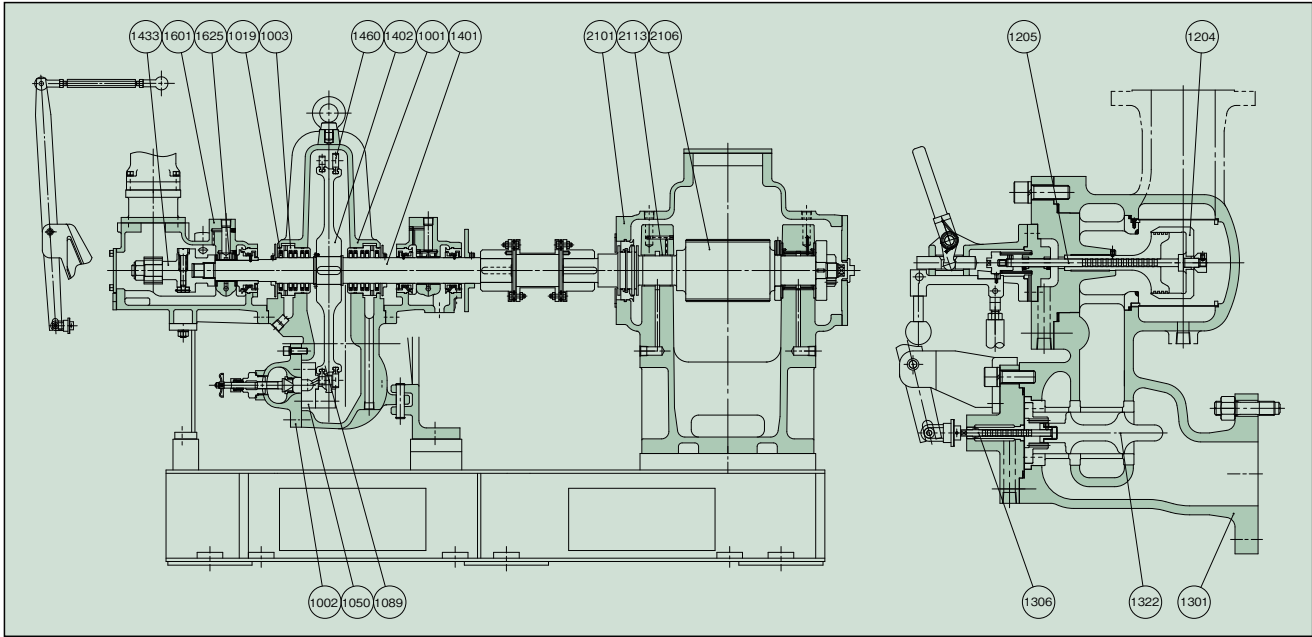
**● Governor**

- Max. speed regulation ..... 0.5%
- Max. speed variation ..... ±0.25%
- Max. speed rise ..... 7%
- Speed range ..... +5 ~ -30%
- NEMA class ..... D

**● Emergency Trip Device**

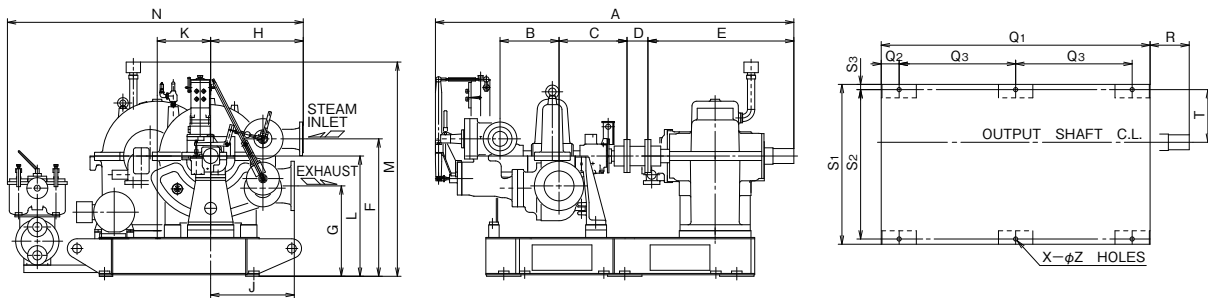
- Actuation of overspeed trip ..... 115% of rated speed
- Actuation of low LO pressure trip ..... Below 0.05 MPaG

## DESIGN & MATERIALS



PART NO.	NAME OF PART	MATERIAL		REQ.NO. FOR 1 TURBINE	PART NO.	NAME OF PART	MATERIAL		REQ.NO. FOR 1 TURBINE
		NAME	JIS				NAME	JIS	
1001	TURBINE CASING	CAST STEEL	SCPH2	1SET	1322	GOVERNOR VALVE	STAINLESS STEEL	SUS420J2	1
1002	STEAM CHEST	"	"	1	1401	TURBINE SHAFT	CARBON STEEL (With Cr-PLATING)	S45C	1
1003	PACKING CASE	BRONZE	CAC407	1SET	1402	DISC ROTOR	CARBON STEEL	"	1
1019	CARBON PACKING	SPECIAL CARBON		10SETS	1433	OVERSPEED TRIP SHAFT	"	S35C	1
1050	NOZZLE	STAINLESS STEEL	SUS403	1	1460	MOVING BLADE	STAINLESS STEEL	SUS410J1	1SET
1089	STATIONARY BLADE	"	"	1SET	1601	BEARING HOUSING	CAST IRON	FC200	1SET
1204	EMERGENCY VALVE	"	SUS420J2	1	1625	BEARING METAL	WHITE METAL WITH STEEL	WJ2 S25C	1SET
1205	VALVE STEM	STELLITE		1	2101	REDUCTION GEAR CASING	CAST IRON	FC200	1SET
1301	GOVERNOR VALVE CASING	CAST STEEL	SCPH2	1	2106	PINION	Ni-Cr-Mo STEEL	SNCM439	1
1306	VALVE STEM	STELLITE		1	2113	BEARING METAL	WHITE METAL WITH STEEL	WJ2 S25C	1SET

## OUTLINE DIMENSIONS



Dimensions : mm

Model	A	B	C	D	E	F	G	H	J	K	L	M	N	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	R	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	T	X	Z
DDG 42(A)-35	2115	360	445	100	815	820	490	475	440	342	655	1215	1490	1600	100	700	235	930	870	30	343	6	28
DDG 61(A)-35	2400	395	455	140	977	920	605	620	560	357	805	1434	1980	1800	120	780	262	1070	1000	35	353	6	28
-45	2435	395	455	152	1000	935	620	620	560	489	820	1555	2230	1810	120	785	287	1330	1260	35	481	6	28
DDG 81(A)-35	2600	440	520	178	977	1150	600	670	725	357	950	1600	2390	1950	120	855	275	1450	1380	35	623	6	28
-50	2740	440	520	152	1145	1150	600	670	725	513	950	1720	2630	2030	120	895	335	1620	1550	35	637	6	28

**SHINKO IND.LTD.**