

# Curtis single-stage STEAM TURBINES

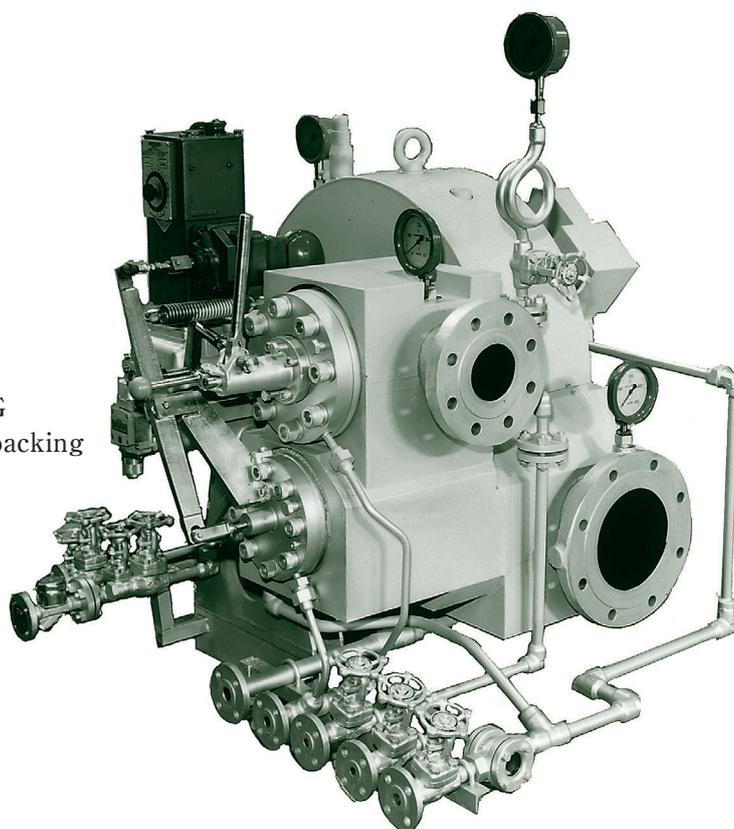
# SHINKO DD

## ■ APPLICATIONS

Boiler feed pumps  
Forced draft fans  
Induced draft fans  
Pumps and others

## ■ SPECIFICATIONS

Max. output ..... 1000 kW  
Max. exhaust steam pressure .. 0.7 MPaG  
Gland seal ..... Carbon packing  
Lubrication system ..... Oil ring



## ■ GENERAL CHARACTERISTICS

Item	Model	DD 42	DD 61	DD 81	DD 42A	DD 61A	DD 81A
Max. output	(kW)	350	600	1000	350	600	1000
Max. speed	(rpm)	3600					
Direction of rotation		CW facing turbine toward driven machine					
Max. inlet steam pressure	(MPaG)	6.2					
Max. inlet steam temperature	(°C)	410					
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		Oil ring					
LO required	(ℓ)	2.7	2.7	3.6	2.7	2.7	3.6
Cooling water required	(m <sup>3</sup> /h)	1					
Governor		Woodward UG or PG					
Hand nozzle valve		Available according to requirement					
Weight (turbine proper)	(kg)	620	1100	1350	630	1110	1400

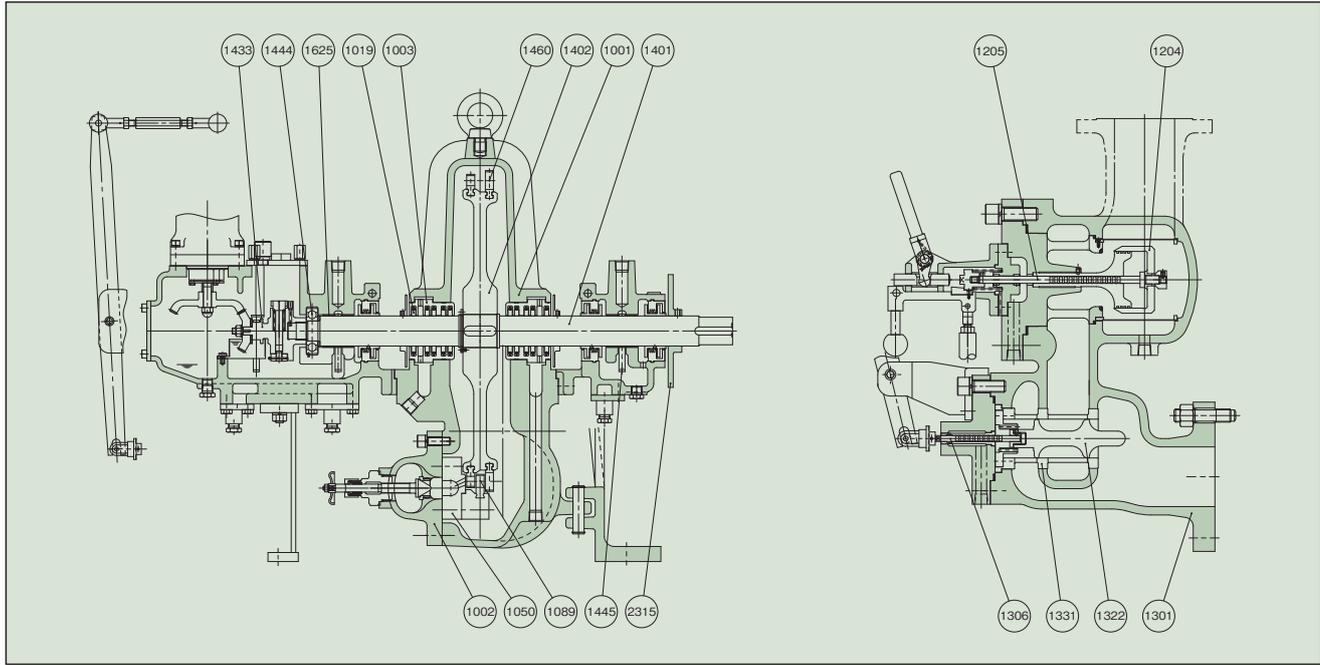
### ● Governor

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

### ● Emergency Trip Device

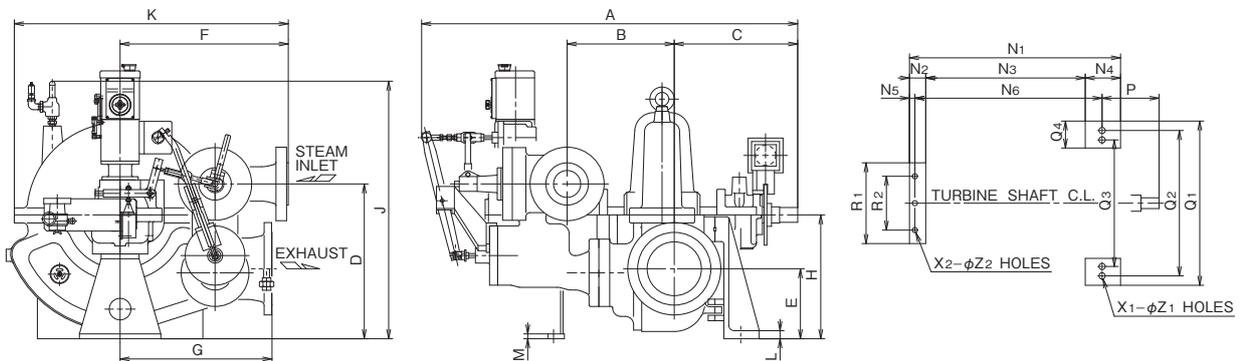
Actuation of overspeed trip ..... 115% of rated speed

## 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	1331	LINER	"	"	1
1003	PACKING CASE	BRONZE	CAC407	1SET	1401	TURBINE SHAFT	CARBON STEEL (With Cr-PLATING)	S45C	1
1019	CARBON PACKING	SPECIAL CARBON		10SETS	1402	DISC ROTOR	CARBON STEEL	"	1
1050	NOZZLE	STAINLESS STEEL	SUS403	1	1433	OVERSPEED TRIP SHAFT	"	S35C	1
1089	STATIONARY BLADE	"	"	1SET	1444	BALL BEARING	SPECIAL STEEL	SUJ2	1
1204	EMERGENCY VALVE	"	SUS420J2	1	1445	OIL RING	BRONZE	CAC407	2
1205	VALVE STEM	STELLITE		1	1460	MOVING BLADE	STAINLESS STEEL	SUS403	1SET
1301	GOVERNOR VALVE CASING	CAST STEEL	SCPH2	1	1625	BEARING METAL	WHITE METAL WITH STEEL	WJ2 S25C	1SET
1306	VALVE STEM	STELLITE		1	2315	TACHOMETER ROTOR	STEEL WITH MAGNETS	SS400	1SET

## OUTLINE DIMENSIONS



Dimensions : mm

Model	A	B	C	D	E	F	G	H	J	K	L	M	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	N <sub>4</sub>	N <sub>5</sub>	N <sub>6</sub>	P	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	Q <sub>4</sub>	R <sub>1</sub>	R <sub>2</sub>	X <sub>1</sub>	X <sub>2</sub>	Z <sub>1</sub>	Z <sub>2</sub>
DD 42(A)	1213	360	445	495	165	475	440	330	720	745	25	18	672	60	527	85	20	612	270	410	360	—	65	240	190	2	2	23	19
DD 61(A)	1390	395	455	575	260	620	560	460	957	1010	30	18	778	60	588	130	20	690	210	610	540	—	100	300	200	2	2	25	19
DD 81(A)	1420	440	520	850	300	670	725	650	1300	1220	40	30	892.5	75	617.5	200	37.5	780	225	850	760	520	200	560	460	4	3	27	23

**SHINKO IND.LTD.**