

Shin Nippon Machinery makes you satisfaction absolutely!

## Single-stage Steam Turbine API 611/612 Application

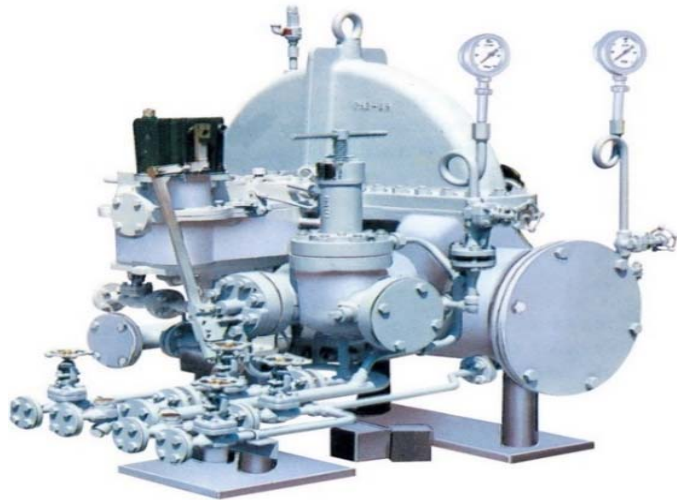
### Overview

Both the H series and the high-output, high-speed compatible HO series are single-stage, horizontally-installed compact general-purpose turbines. Our product range also includes the high-speed rotation-compatible CC series(also single-stage and horizontally-installed) for use with compressors, etc. The vertical-type V series is also available.

### Users

Mainly used for pumps, fans, compressors, mills, and shredders in various factories such as refinery plants (Oil major companies(Royal Dutch Shell , Exxon-Mobil, etc) and National Oil companies(Saudi ARAMCO, PETRONAS, etc)), petroleum plants, sugar mills, and power plants.

The H, HO, V series are suitable for use with the API 611 standard, while the CC series is suitable for use with the API 612 standard.



H, HO, CC

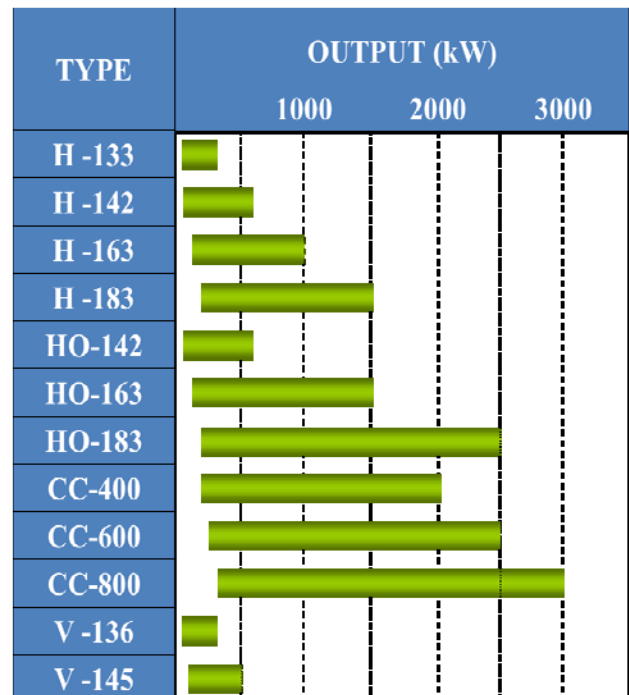
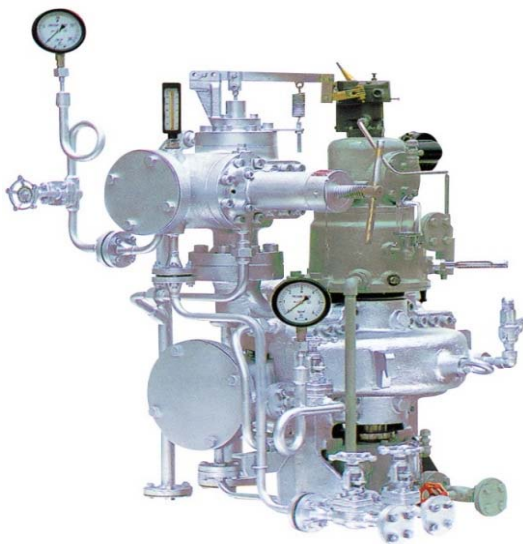
Horizontal Type

Back-Pressure Steam Turbine

V

Vertical Type

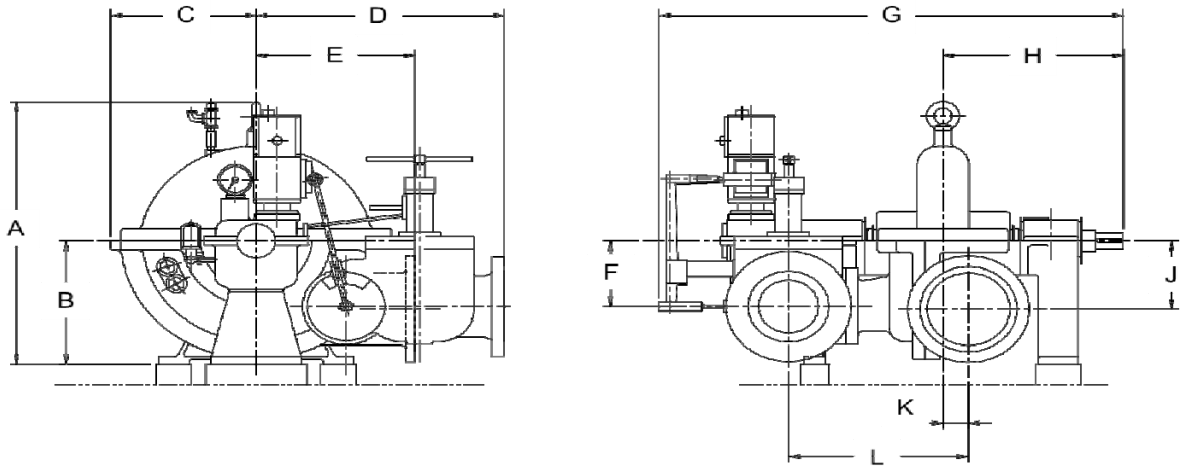
Back-Pressure Steam Turbine



### Specifications

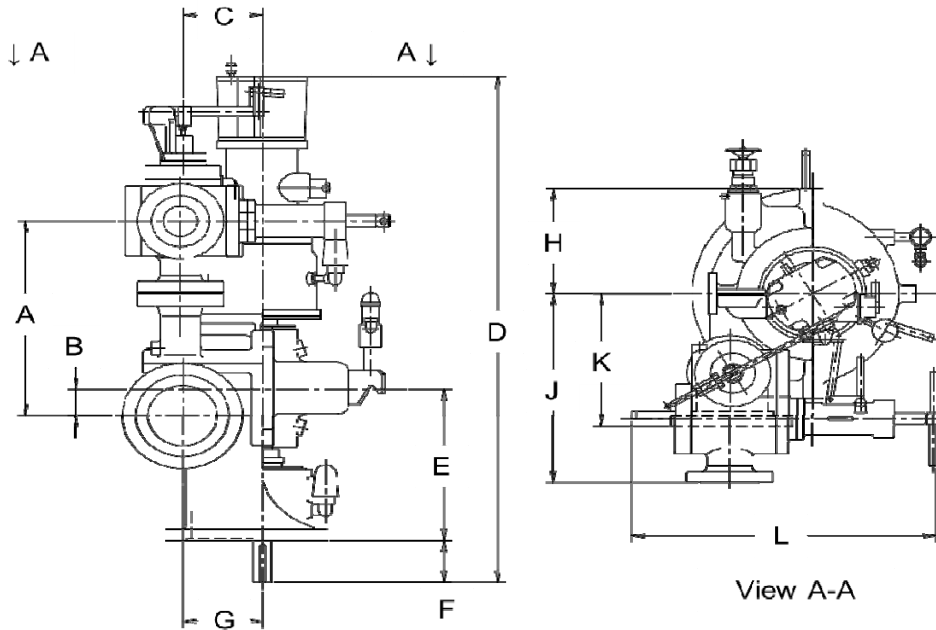
Item	Type	H-133	H-142	H-163	H-183	HO-142	HO-163	HO-183	CC-600	CC-800	V-136	V-145
Type		Horizontal								Vertical		
Maximum Speed	(rpm)	4,200	4,200	4,200	4,200	9,000	7,200	5,500	7,500	6,200	4,200	4,200
Maximum Output	(kW)	300	600	1,000	1,500	600	1,500	2,500	3,000	3,000	300	500
Maximum Inlet Steam Press.	(BarG)	45	45	45	45	67	67	67	67	67	45	45
Maximum Inlet Steam Temp.	(°C)	450	450	450	450	500	500	500	500	500	450	450
Maximum Exhaust Press.	(BarG)	7	7	7	7	15	24	12	15	12	7	7
Nominal Rotor Diameter	(mm)	300	400	600	800	400	600	800	600	800	300	400
Inlet Nozzle Bore (Min./Max.)	(mm)	80	80/150	80/200	80/250	80/150	80/200	80/250	100/200	100/200	80	80/100
Exhaust Nozzle Bore	(mm)	150	200	250	300	200	250	300	300	350	150	200
Number of Hand valve (Max.)		1	2	2	2	2	2	2	2	2	1	1
Weight (Max.)	(kg)	450	750	1,200	1,500	800	1,300	1,700	2,100	2,400	480	750

## Layout Drawing (for reference)



Unit: mm

Item	Type	H-133				H-142 / HO-142				H-163 / HO-163				H-183 / HO-183					
Inlet Nozzle Bore		80	80	100	150	80	100	150	200	80	100	150	200	250	80	100	150	200	250
Exhaust Nozzle Bore		150	200				250				300								
A		641	845				991				1,090								
B		350	470				470				470								
C		278	325				435				575								
D		540	630	660	765	630	660	765	850	630	660	765	850	1,125					
E		350	415				510				630								
F		184	259	250		259	250		259	259	250	259	250	350					
G		1,060	1,290				1,290				1,290								
H		403	540				540				540								
J		160	230				260				340								
K		40	50				70				90								
L		393	495				515		525		535			545	765				



Unit: mm

Item	Type	V-136	V-145
A		515	563
B		70	50
C		190	235
D		1,265	1,335
E		400	400
F		114	117
G		185	240
H		278	325
J		510	558
K		350	410
L		650	860

## SUPPLY RECORD OF STEAM TURBINE

(FROM 1970 TO 2020.6)

Area of COUNTRY	No. of SINGLE STAGE	Area of COUNTRY	No. of SINGLE STAGE
JAPAN	1,533	EUROPE	215
ASIA	2,122	NORTH AMERICA	23
MIDDLE EAST	717	LATIN AMERICA	256
AFRICA	244	OCEANIA	70
		<b>TOTAL COUNTRIES</b>	<b>69</b>
		<b>TOTAL UNITS</b>	<b>5,180</b>



**SHIN NIPPON MACHINERY CO., LTD.**

<http://www.snm.co.jp/>