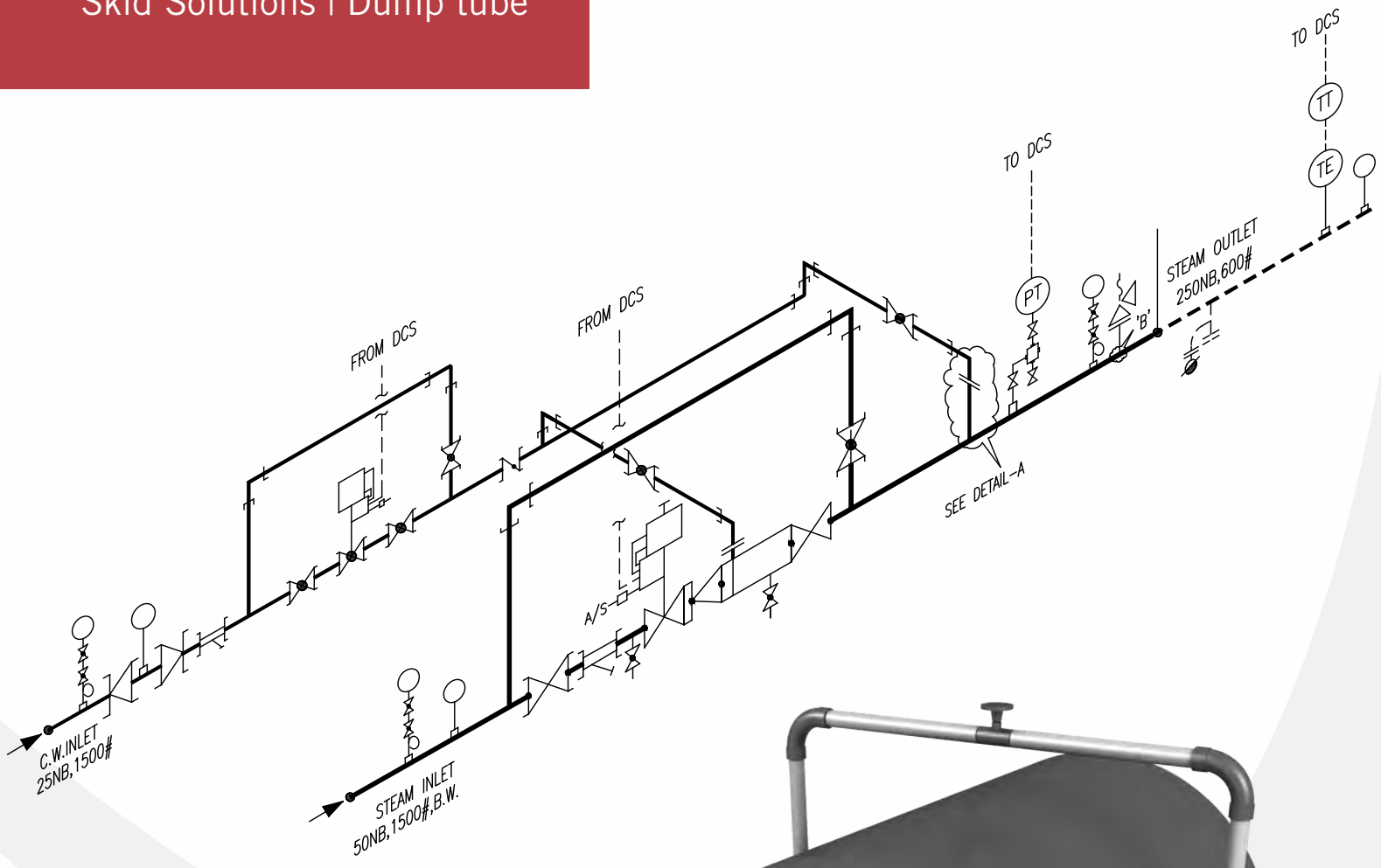
CIR 3500

Skid Solutions | Dump tube



CIRCOR is a market - leading, global provider of integrated flow control solutions specializing in the manufacture of highly engineered valves, pumps, fittings, pipeline products & services and associated products, for critical and severe service applications in the oil and gas power generation and process industries.

Comprised of best-in - class, historically significant product brands, we consistently satisfy our customers mission - critical application needs by utilizing advanced technologies that can with stand extreme temperature and pressure from land - based to sub- sea and in between.

CIR 3500 is a solution range designed to support various operations in industries to customers globally including,

- Upstream Oil and Gas
- Power Generation
- Midstream Oil and Gas
- General Industry
- Downstream Oil and Gas
- Processing
- Renewables

CIR 3500 are custom solutions designed to cater auxiliary systems and various applications mainly in process, power, paper/pulp industries. Our CIR 3500 solutions are proven and rugged design which offers most accurate and reliable steam engineering solutions to the industry.

FEATURES

- DESIGNED TO PROCESS

Each skid solution is designed to order based on customer flow data/requirments, severity and its criticality.

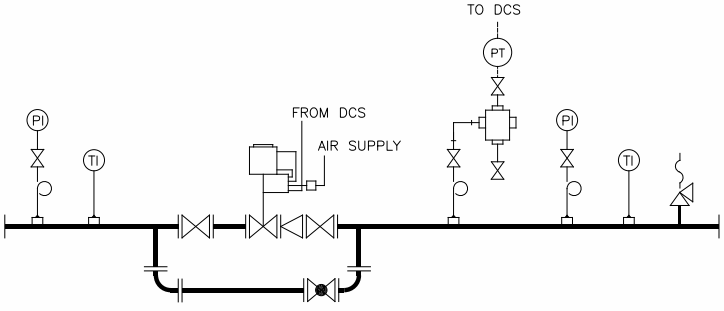
- INTEGRATED SOLUTION

Combining the benefits & features of Circor made control valve, CIR 3100 desuperheaters, CIR 3200 steam conditioning valves CIR 3300 & 3400 as one solution makes it fool-proof and less prone to failure.

PRESSURE REDUCING STATION I CIR 3510

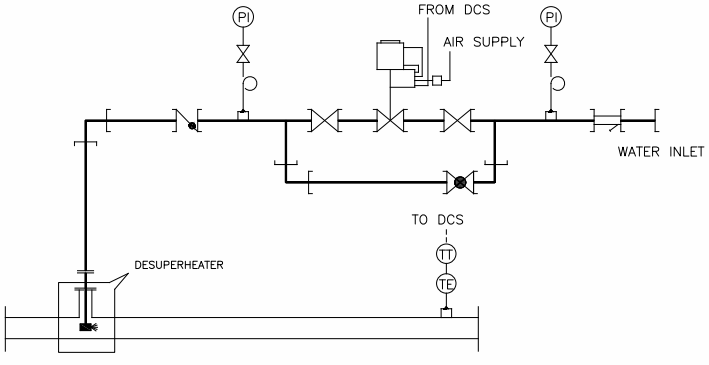
CIR 3510 station consists of a pressure control loop which includes a CIR 3100 or CIR 3400 pressure reducing valve with isolation valve along with PT and PID controller. The Pressure reducing valve opens and closes as per downstream steam demands.

This closed loop operation take place in automatic manner. Steam trap module assembly is always recommended for PRS station for managing condensate pooling during different load conditions.



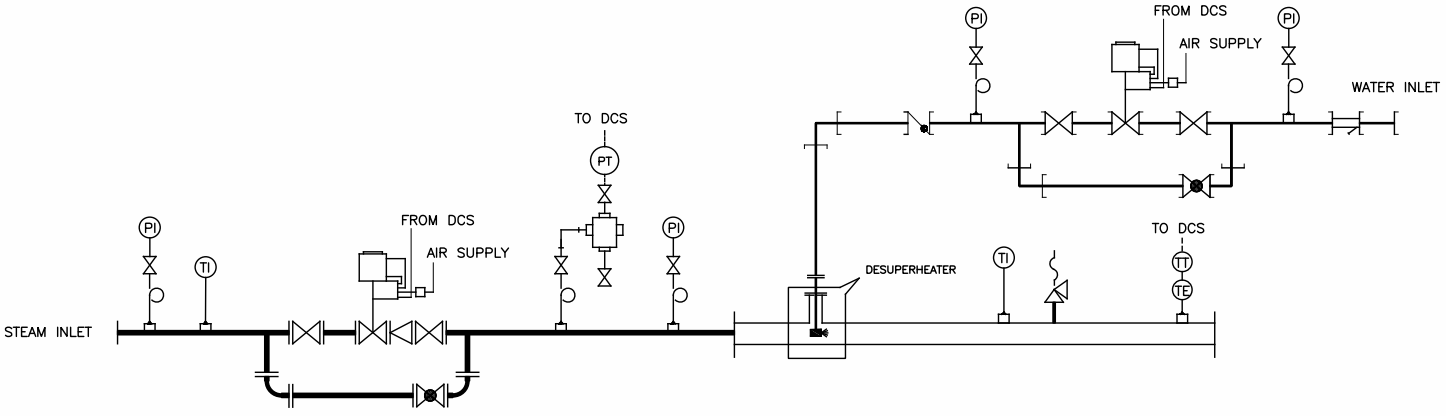
DESUPERHEATING STATION I CIR 3520

CIR 3520 Desuperheating station consists of CIR 3200 desuperheater along with temperature control loop including CIR 3100 spray water control valve along with appropriate field instruments which offers most accurate and reliable desuperheating solutions. The spray water control valve skid incorporates bypass arrangement along with isolation valves and Y type dual strainers and non-return valve. Spray nozzle can also be offered with or without integral actuator.



CIR 3530 PRDS station includes a pressure and temperature control loop and is used to condition the steam generated from the boiler to the desired outlet pressure and temperature. Main components of Pressure control loop are CIR 3100 or CIR 3400 steam pressure valve & bypass arrangement along with pressure transmitter(PT) and local gauges which aids in controlling the steam pressure suitable to process requirements.

The temperature control loop consists a CIR 3200 desuperheater, CIR 3100 temperature control valve and a bypass arrangement along with instruments like temperature gauge(TG) and temperature transmitter(TT) which aids in controlling the steam temperature to the set target. In addition to pressure and temperature loop this skid incorporates additional accessories like safety valves and steam trap arrangement at downstream side of skid in order protect downstream piping from over pressure and condensate pooling during extreme load conditions.



SPECIFICATIONS

Type	Skid with complete piping as per ANSI B31.1 Power Piping
Size	1” to 24”
ANSI Class	150# to 2500#
End Connections	SWE, BWE, RF, RTJ
Skid Material	A 106 Gr B, A335 Gr P11, A335 Gr P22, A335 Gr P91
Control Valve	CIR 3100 / CIR 3300
Desuperheater	CIR 3200
Certification/Compliance	IBR

DUMP TUBE I CIR 3540

CIR 3540 Dump Tube is important part of steam discharging in a condenser. This device is primarily used to minimise the size of bypass valve outlet where the specific volume of steam dramatically increases at low or sub-atmospheric pressures. The arrangement and the size of the holes in the dump tube are selected to minimize noise generation and direct the steam path away from the duct walls and towards the condenser inlet depending upon the installation.

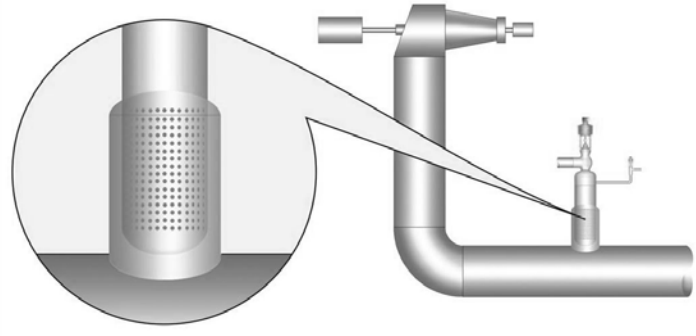
The dump tubes are normally fitted onto the condenser inlet duct and are carefully designed to achieve the final pressure reduction stage and allow the steam to expand and cool prior to entering the condenser. It is recommended to ensure that the dump tube is designed properly with respect to size, shape and profile to avoid interference with the turbine exhaust steam path under normal turbine operation.

AIR COOLED CONDENSER

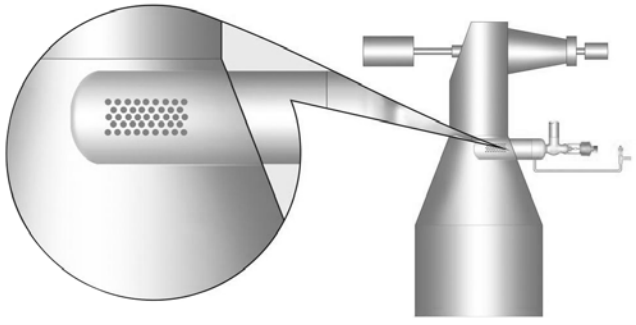
The dump tube is installed onto the turbine exhaust with the holes drilled around the complete circumference i.e.360 degree

WATER COOLED CONDENSER

The dump tube is installed onto the condenser with the holes drilled in two 90-degree sectors. This does not allow the steam to go up to the turbine exhaust or directly down to the tubes in the condenser.



Dump tube installation for Air Cooled Condenser



Dump tube installation for Water Cooled Condenser

CIR3540 – Ordering Code

1&2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Model	Prod.	Prod. Type	Outlet Shell	Nozzle Type	Intel Size	Outlet Size	Rating	End Conn	S.W Pipe Size	S.W Side Rating	Mat'l of Const	S.W Side Mat'l of Const	Comp -liance	Special
35	4	1	1	1	A	D	A	5	3	A	F	F	1	Z

Position - 1&2 | Model
35

Position - 3 | Product
4 - Dump Tube

Position - 4 | Product Type
1 - Air Cooled - 1 Stage
2 - Air Cooled - 2 Stage
3 - Water Cooled - 1 Stage
4 - Water Cooled - 2 Stage
Z - Special

Position - 5 | Outlet Shell
1 - Yes
2 - No

Position - 6 | Nozzle Type
1 - Fixed Nozzle - FN
2 - Spring Loaded Nozzle - SL
X - N.A

Position - 7 | Inlet Size
8 - 6"
9 - 8"
A - 10"
B - 12"
C - 14"
D - 16"
E - 24"
F - 20"
G - 22"
H - 24"
J - 26"
Z - Other

Position - 8 | Outlet Size
8 - 6"
9 - 8"
A - 10"
B - 12"
C - 14"
D - 16"
E - 18"
F - 20"
G - 22"
H - 24"
J - 26"
K - 28"
L - 30"
M - 32"
N - 34"
P - 36"
Z - Other

Position - 9 | Rating
A - 150# X 150#
B - 300# X 150#
C - 300# X 300#
Z - Special/Other

Position - 10 | End Conn

5 - BWE x BWE
7 - RF x BWE
3 - RTJ x BWE
Z - Special /Other

Position - 11 | S.W Pipe Size
1 - 1/2"
2 - 3/4"
3 - 1"
4 - 1.5"
5 - 2"
6 - 3"
7 - 4"
X - N.A
Z - Other

Position - 12 | S.W Side Rating
A - 150#
B - 300#
X - NA
Z - Special/Other

Position - 13 | Mat'l of Const
F - A 516 GR 70
G - A 387 GR 11
H - A 387 GR 22
Z - Special

Position - 14 | S.W Mat'l of Const
F - A106 Gr B
G - A335 Gr P11
H - A335 Gr P22
X - N.A
Z - Special

Position - 15 | Compliance
1 - IBR
X - NA
Z - Special/Other

Position - 16 | Special
X - NA
Z - Special

OUR CREDENTIALS

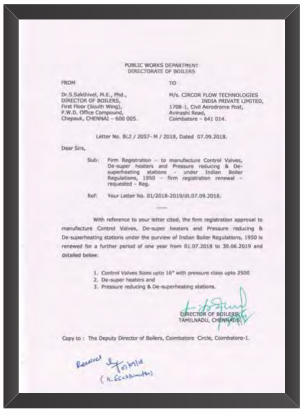
ISO 9001-2015

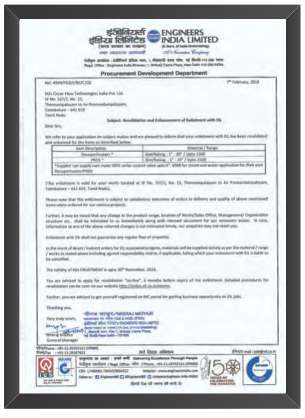
IMS: ISO 14001:2015 & ISO 45001:2018

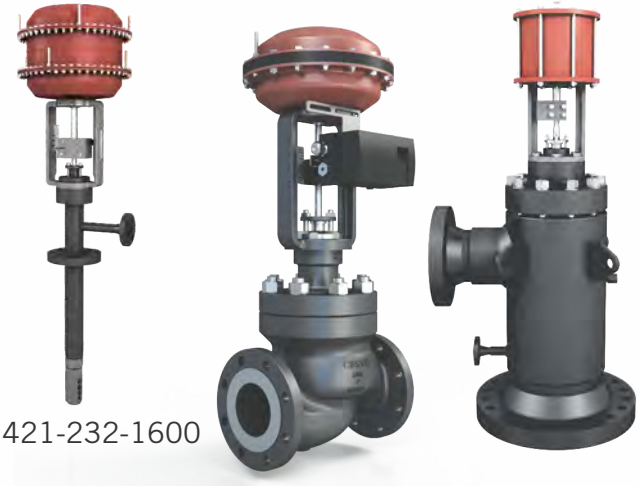
Indian Boiler Regulation approved

Certified PED 2014/68/EU & CE Marked

Enlisted / Approved by major customers







Your plant/process may also require,
Control Valves : CIR 3100
Desuperheaters : CIR 3200
Steam conditioning valves : CIR 3300 & CIR 3400
Please contact us at sales.india@circor.com / Ph: +91 - 421-232-1600

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Excellence In Flow Control

Asia I Europe I Middle East I North America I South America

Our Brands

KF Valves
Mallard Control
Contromatics
Hydroseal
Pipeline Engineering
DeltaValve
TapcoEnpro

Hoke
GO Regulator
Texas Sampling
CIRCOR Tech
Dopak

Leslie Controls
RTK
Schroedahl
CIRCOR
R.G. Laurence
Rockwood Swendeman
CPC-Cryolab

CIRCOR Aerospace
Circle Seal Controls
Industria
Bodet
Atlas Productions
Aerodyne Controls
Hale Hamilton

Allweiler
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