RigDeluge®

RD44®

The **RD44®** is Patented Technology which was designed to adhere to the Health and Safety at Work Act 1974 where safe ingress and egress is always required for personnel. The **RD44®** can be used on any flare boom and has been designed to ensure a clear path way for personnel is always achieved. When installed on shore no crane operations are required which will reduce NPT during well test operations. There are 20 safety initiatives designed into the **RD44®** when used with the **Free Flow Nozzle™.**

The risks associated with rig cooling / heat suppression systems used on flare booms is reduced to as low as reasonably practical by mitigating many associated hazards.

The **RD44®** has been used on the Halliburton Flare Boom, The Expro Flare Boom and the Schlumberger Flare Boom where safety and efficiency were recorded by the operators

Not only is the Health and Safety at Work Act 1974 adhered to, but Slips, Trips, Falls, Pinch Points, Back Injury and Struck by Loads are ALL Reduced to as Low as Reasonably Practical.

Two Hand Rails and a Walk Way is specifically designed into all flare booms to allow for safe passage for the Well Test Operators. The above picture shows a Halliburton Well Test Flare Boom designed to allow for safe passage for personnel doing just that.

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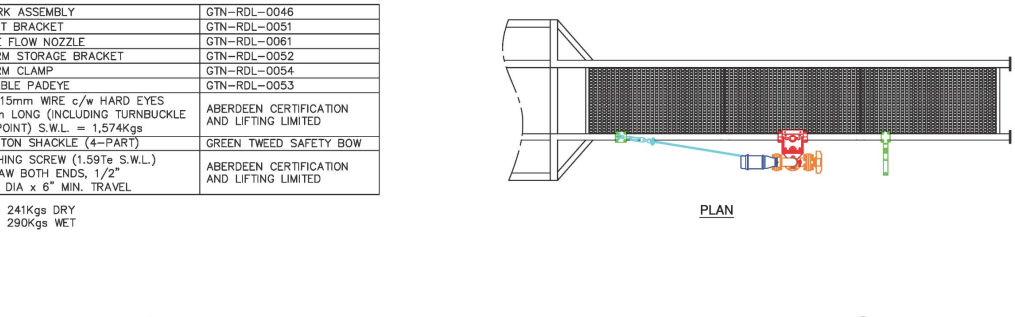
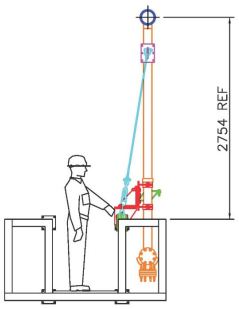
Technical Data:

ITEM	QTY.	DESCRIPTION	DRAWING No.
01	1	PIPEWORK ASSEMBLY	GTN–RDL–0046
02	1	SUPPORT BRACKET	GTN–RDL–0051
03	1	6" FREE FLOW NOZZLE	GTN–RDL–0061
04	1	PIPE ARM STORAGE BRACKET	GTN–RDL–0052
05	1	PIPE ARM CLAMP	GTN–RDL–0054
06	1	REMOVABLE PADEYE	GTN–RDL–0053
07	1	SLING ø15mm WIRE c/w HARD EYES 3000mm LONG (INCLUDING TURNBUCKLE AT MIDPOINT) S.W.L. = 1,574Kgs	ABERDEEN CERTIFICATION AND LIFTING LIMITED
08	1	4–3/4 TON SHACKLE (4–PART)	GREEN TWEED SAFETY BOW
09	1	STRETCHING SCREW (1.59Te S.W.L.) OPEN JAW BOTH ENDS, 1/2" THREAD DIA x 6" MIN. TRAVEL	ABERDEEN CERTIFICATION AND LIFTING LIMITED

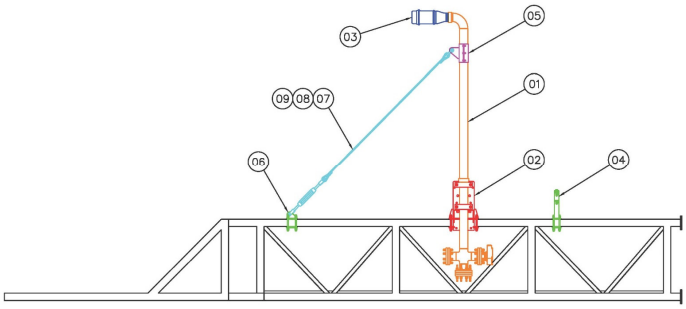
WEIGHT: 241Kgs DRY
290Kgs WET



PLAN



END ELEVATION



ELEVATION

Independent Certifying Authority	Bureau Veritas Cert 12ABD61946 Rev B
Maximum Working Pressure	285 psig (piping) 16 Bar
Estimated Maximum Flow Rate	1000 gpm (piping)
Wet Weight	290Kg (Dry 241Kg)
Service Temperature Range	-10°C to +280°C
Maximum Nozzle Reaction	3790 N
SWL (Sling Wire)	1440 Kg
Materials	(1) St/St 304 Yield≥ 205 Mpa Tensile≥ 515 Mpa
	(2) BS3692 Gr 8.8 Yield≥ 640 Mpa Tensile≥ 800 Mpa
	(1) EN10025-2 Yield≥ 235 Mpa Tensile≥ 360 Mpa
Manufactured	ASME B31.3
Design References	ASME B31.3 2012
	ASME B16.5 2013 (RFSO Flange Only)
	ASME B16.9 2012 (4" Equal Cross and 4" Elbow Only)
	API14 G 2007 (Nozzle)
	AISC Steel Construction Manual 14th Edition
	AISC Specification for Structural Steel Buildings 2010

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There are more than 20 operational safety and efficiency improvements innovated in to this third generation Well Test Flare Boom Cooling System.

Personnel should never have to work under the conditions shown on the Left when there is an engineered solution available. This Expro Operator above and the Schlumberger Operator below are visibly struggling to make it along a walk way designed so allow for safe ingress and egress.

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If we simply follow the Hierarchy of Controls the Right Hand clear walk way option would always be utilised where available to replace administrative controls with an engineered and proven solution.

When utilised with the Award Winning **RigDeluge®** Six Inch Free Flow Nozzle™ MKI you can truly say that Hazards and Risks have been reduced to as low as reasonably practical.

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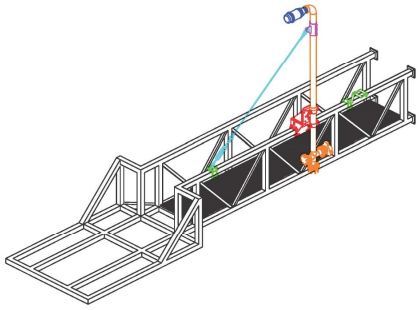
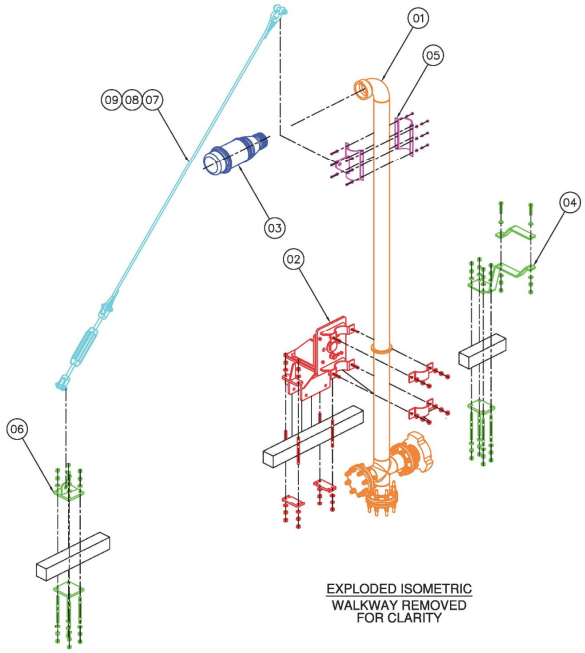


ISOMETRIC



EXPLODED ISOMETRIC
WALKWAY REMOVED FOR CLARITY

As a modular system **RigDeluge®** can supply installation and operation training in addition to the basic install videos, the system can be purchased by any rig cooling or heat suppression company to enable the introduction of safety to their existing packages.

The **RD44®** can be rental or purchased by Well Test Companies and Operator's where **RigDeluge®** can supply trained personnel to install and operate the system.

Drilling contractor can also purchase the system, and have it installed to their existing flare booms to allow for a system that is specifically designed to attenuate heat produced by the ever-green burner heads.

Engineered to Improve Safety, Performance and Financial Efficiencies.

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Installed On-Shore to avoid Crane Operations Offshore:

Operational Offshore:

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The **RD44®** can be fitted to any Flare Boom and can be supplied with a bespoke stand where no box hand rails is available.

With a full 360° Rotation Vertical and Horizontal the system can be stowed very easily between well test operations to avoid crane operations.

Previous solutions were to paint these systems Yellow, this risk of being struck by a load between flaring operations is now Mitigated.

To fully understand the safety and efficiency benefits we would suggest a Lunch and Learn with our Product Line Champion and the Inventor Ian Garden.

Contact Ian Direct at ian@rigdeluge.com.

You can also watch the safety video on the web site and down load the Flare Boom Safety Presentation at www.RigDeluge.com

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