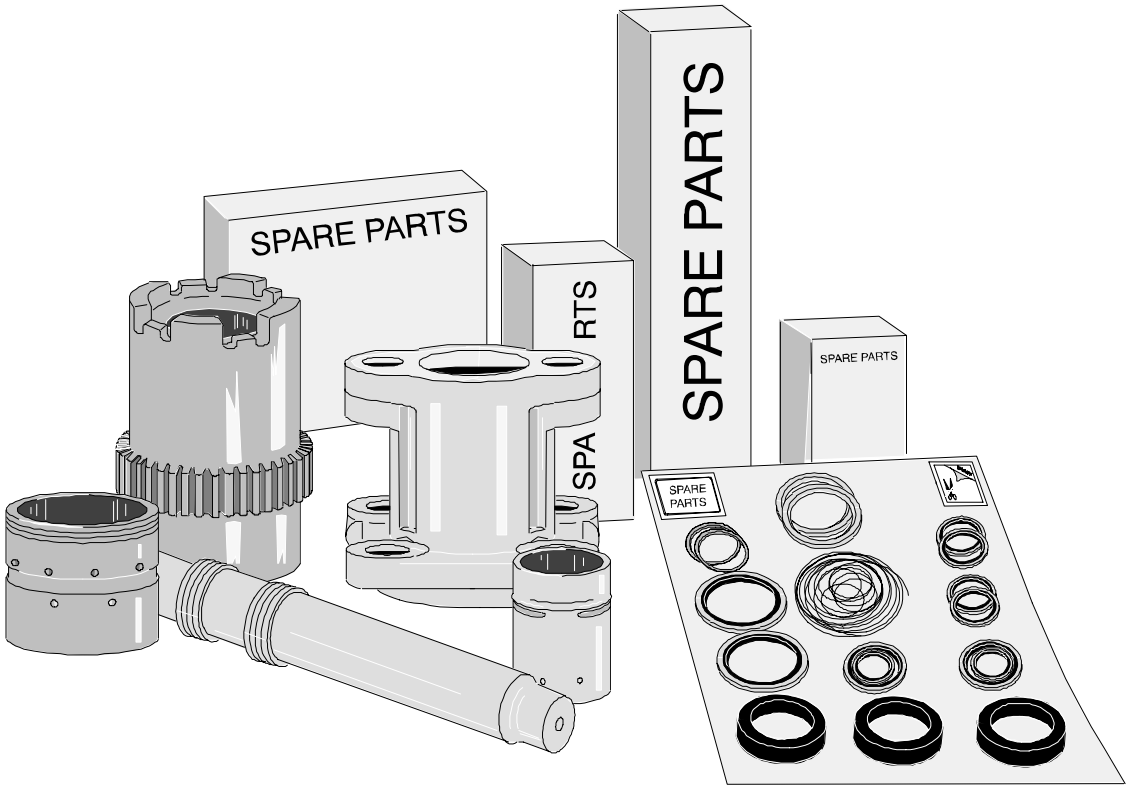
IDENTIFICATION CARD



2. IDENTIFICATION CARD

UNIT IDENTIFICATION CARD

Ranger DX800

Serial no. 46748	BG00708702	DXc80d
Order number/sn	Equipment main assembly	Type code

Component	*Code or Value*	*Serial no. / Manufact. / Size*

EQUIPMENT

Ordered by	**SANDVIK MINING AND CONSTRUCTION FINLAND CORP.**
Customer	
Delivery country	**FINLAND**
Ref.no.	**R402370**

CIRCUIT DIAGRAMS

HYDRAULICS

Carrier	551 951 44
Drilling	551 833 88
Tramming	551 833 82
Boom	551 952 15
Casette	551 833 84
Winch	551 833 85
Ground support	551 833 86
Extra Turn	551 833 87
Front Jack	-
Main diagram	551 955 89

PNEUMATICS

Powerpack / carrier	BG 003 525 17

ELECTRICS

Circuit diagram	BG 004 224 75
Electrical assembly	BG 004 817 13

ROCK DRILL

HF820T	BG 005 137 66	H047037

ROTATION MOTOR

OMT 315	154 127 24	N53826934

P.O. Box 100
FIN-33311 TAMPERE, FINLAND
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UNIT IDENTIFICATION CARD

Ranger DX800

Serial no. 46748	BG00708702	DXc80d
Order number/sn	Equipment main assembly	Type code

Component	*Code or Value*	*Serial no. / Manufact. / Size*
FEED		
Feed assembly	BG 005 542 74	
CF 145Hx12	550 662 61	*see welding / castings*
Feed motor	BG 001 196 15	2619236
Cradle	550 657 57	*see welding / castings*
Moveable suction head	550 398 42	
Jaws	550 752 15	2" MF ROD
Additional jaws	550 752 14	1 ¾" MF ROD
ROD CHANGER		
RH 714	BG004 334 47	
BOOM		
DB 800 H	550 657 42	*see welding / castings*
CARRIER		
Upper frame	BG 005 713 35	*see welding / castings*
Lower frame	551 803 17	*see welding / castings*
Fuel tank	551 918 82	*see welding / castings*
Hydraulic tank	551 561 38	*see welding / castings*
Powerpack	BG 002 055 94	*see welding / castings*
POWERPACK		
Engine assembly	BG 002 120 57	
CAT 7.1 168kW Tier4F	552 260 86	88101555
Date of manufacturing		JAN 2016
Engine arrangement		445-5317
Starter	BG 002 272 95	15-265
Part no.		382-5901
Alternator	BG 002 272 85	07OCT15
Part no.		352-470005
Aftertreatment assembly	BG 001 736 97	CFH094333B
Part no.		470-0244
Pump electronics tank	BG 002 103 52	PET043015T
Part no.		389-2689

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Component	*Code or Value*	*Serial no. / Manufact. / Size*
PUMP DRIVE GEARBOX		
Stiebel 4370	551 814 18	725725
HYDRAULIC PUMPS		
Percussion piston pump	BG 002 234 70	34562796
Rotation piston pump	550 033 41	34553823
Quadro pump	BG 002 281 72	03/16 66088719/004
WATER COOLER		
Cooler	BG 002 607 42	2015 018577015 2015/11
Cooler fan motor	BG 002 027 12	15K18349
OIL COOLER		
Oil cooler	551 792 52	20150161580032015/11
Cooler fan motor	551 828 03	33/15 66076401/005
FUEL COOLERS		
Fuel cooler	551 894 96	20150118300192015/11
Gearbox cooler	551 894 96	20150118300022015/11

PNEUMATIC COMPONENTS

COMPRESSOR		
Enduro 25	550 675 59	FE025023213
Air receiver	551 905 83	80731/BATCH 368/2015
Safety valve	BG 003 345 58	12/15
SHANK LUBRICATION		
SLU 14L	551 796 12	
Pump unit	551 746 40	30039

TRACKS

Frame assembly	552 229 56	628
Left	552 200 19	*see welding / castings*
Right	552 200 22	*see welding / castings*
Track chain	551 000 79	Berco
Idler wheels	550 999 80	Berco
Rollers	550 999 87	Berco
Final drive assembly		Trasmital
Left	550 946 72	15128719
Right	550 946 72	15128715

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Serial no. 46748	BG00708702	DXc80d
Order number/sn	Equipment main assembly	Type code

Component	*Code or Value*	*Serial no. / Manufact. / Size*
HYDRAULIC VALVES		
Drilling valve block	BG 002 199 01	29023
Feed valve	887 368 19	n/a
Rotation valve	551 786 37	n/a
Boom valve	551 932 86	n/a
Rod changer	550 781 12	n/a
Tramming valve	550 521 28	n/a
Oscillation valve	258 295 08	n/a
Remote control block	BG 004 162 63	29604
DUST COLLECTOR		
DC 800 H assy	550 680 81	
Dust collector	BG 003 252 52	F021054
Hydraulic motor	858 570 99	201512220711
CABIN		
Cabin assembly	BG 002 237 07	3384
OPTIONAL EQUIPMENT		
ANGLE INDICATOR		
Spirit level angle indicator	-	
TIM 3D .	BG 004 044 61 / 552 174 17 /	
Display unit	552 174 18	000482
I/O Module	551 949 67	09151227
Carrier rotation sensor	551 965 19	52015020
Depth sensor	BG 003 739 95	51618120
Feed tilt / swing sensor	551 768 75	01164251
Carrier inclination sensor	551 768 11	01164275
Aiming unit	551 768 41	0116513
Boom inclination sensor	551 692 65	n/a
Feed extension sensor	551 570 72	n/a
GPS receiver master	BG 004 094 76	2923564
Antenna master	BG 003 890 31	15340058
Antenna slave	BG 003 890 31	15350049
Laser receiver	-	
Laser receiver	-	

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Component	*Code or Value*	*Serial no. / Manufact. / Size*
FILLING PUMPS		
Electric fuel filling pump	551 952 60	15590187/026, 35/2015
Electric water filling pump	-	
REMOTE CONTROL SYSTEM		
Transmitter	BG 005 033 58	43885
Spare Transmitter	BG -	
Receiver	BG 005 033 56	43885
Antenna	BG 004 929 79	n/a
WINCH		
Winch assembly	551 841 78	
Winch	551 800 04	314428
Hydraulic motor	552 087 33	50641785
HEATER		
Fuel heater assembly	BG 002 730 10	62491EG
Watertank heating	551 963 16	
CENTRAL LUBRICATION		
Central lubrication system	551 759 12	2015321731/8
WATER INJECTION		
Dustmizer system	BG 003 695 23	
Water tank	550 884 01	80942 / 2015
Safety valve	BG 003 345 65	12/15
TRACKS		
Three bar grouser plates	-	
Guides for grousers	551 814 05	
POWER EXTRACTOR		
Power extractor readyness	-	
Power extractor	-	
OTHER		
Air conditioning	BG 002 433 00	
A/C compressor	BG 002 272 77	005849206570
Radio and CD-MP3 player	888 173 49	
Special seat ISRI	550 103 55	
San Remo	BG 003 266 39	KQ1000054471
Rod greasing system	550 145 86	
Greasing with 5 gallon bucket	-	
Hydraulic ground support	551 904 20	

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Component		*Code or Value*	*Serial no. / Manufact. / Size*
Horizontal drilling kit		-	
Primary cyclone		552 003 88	
Grinder	BG	002 946 88	65849-613 08/15
Anti freeze system		551 963 11	
Fire Extinguiser		-	
Sampling device		-	
Vacuum cleaner		552 081 15	
Xenon lights		552 249 11	
Track lights		-	
Hose reel		X	
Flushing control automatics		237 760 18	
Suction shut down		550 000 51	
Towing hook		-	
Turnable supersructure 180°		X	
Biogradeable hydraulic oil		-	
Reverse camera		551 759 14	
Display	BG	003 349 57	1506M00481
Camera 1 / 2		550 944 99	1508C02100,1508C02098
Camera 3		550 944 99	1508C02099
Noice insulation cover		550 726 46	
Connectivity WLAN	BG	006 115 47	n/a
Flushing pedal		550 895 36	
Fast fill, fuel		-	

FILTERS

COMPRESSOR	
Oil filter element	818 937 49
Compressor air filter	550 892 66
Safety cartridge	550 892 71
COMPRESSOR OIL RECEIVER	
Oil separator	551 931 42
DRILLING HYDRAULICS	
Return filter element	867 272 89
Pressure filter element	815 584 79
DIESEL ENGINE	
Engine air filter	552 001 54
Safety cartridge	552 001 52
Oil filter element	551 998 84
Fuel filter, primary	551 984 05
Fuel filter, secondary	551 984 03
Fuel filter, prefilter	551 990 32

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Order number/sn	Equipment main assembly	Type code

Component	*Code or Value*	*Serial no. / Manufact. / Size*
DUST COLLECTOR		
Filter cartidge	880 211 99	
BREATHER		
Hydraulic tank	BG 005 019 55	
Fuel tank	BG 005 019 55	
Engine	551 998 90	
CABIN AIR FILTER		
Fine	BG 005 856 09	
Coarse	886 092 99	

FLUIDS (Factory filling)

Diesel engine	Shell Rimula R5LE	10W-40
Hydraulics	Shell Tellus S2 V	68
Compressor oil	Shell Corena S2 R	46
Shank lubrication	Shell Air Tool Oil S2 A	100
Transfer gearbox	Shell Omala S4 GX	150
Winch	Shell Spirax S3 AX	80W-90
Track rollers+idler wheels	Shell Spirax S3 AX	80W-90
Final drives	Shell Spirax S3 AX	80W-90
Feed gear	Shell Spirax S3 AX	80W-90
Engine coolant	CAT ELC	
Refridgerant	R134a	

WELDING / CASTINGS

Boom DB 800 H	550 657 42	
Base boom	550 407 46	620132/49/2016/14/B
Knee boom	550 419 70	620132/13/2016/13/I
Swing piece	550 141 28	620132/49/2015/143/C
Cradle	550 657 57	620132/45/2016/7/B
Feed rail	550 662 61	n/a
Left track beam	552 200 19	620560KA/T/104/K/16/31G
Right track beam	552 200 22	620560KA/T/884/K/15/23H
Upper frame	BG 005 713 35	MN/BAN/TK/16/17/335/E
Lower frame	551 803 17	MN/MS/TK/16/16/360/D
Fuel tank	551 918 82	MN/MA/PTKX/16/21/D
Hydraulic tank	551 561 38	MN/TUA/PTKX/15/95/I
Powerpack	BG 002 055 94	MN/TK/NAI/16/9/D

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Component	*Code or Value*	*Serial no. / Manufact. / Size*

HYDRAULIC CYLINDERS

UPPER FRAME

Oscillation left	BG 003 785 76	2/16
Oscillation right	BG 003 785 76	53/05
Rear ground jack	551 638 61	04/16
Frame swing	325 546 78	19/14
Frame extra swing	550 143 29	05/16

BOOM

Boom lift	550 108 68	50/15
Boom knee	325 135 28	04/16
Feed tilt	BG 003 928 75	02/16
Feed swing	550 110 18	03/16
Feed extension	239 017 98	51/15

FEED ASSEMBLY

Suction head transfer	550 077 41	n/a
Collaring guide	550 877 42	38/15
Pito	881 820 49	33/15
Front jack	-	

ROD CHANGER

Lower jaw	550 045 69	47/15
Upper jaw	550 045 69	47/15
Rod feed lower	550 590 61	n/a
Rod feed upper	550 590 61	n/a
Rod transfer lower	550 044 75	47/15
Rod transfer upper	550 044 75	47/15

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Component	*Code or Value*	*Serial no. / Manufact. / Size*

NOTES

TOTAL WEIGHT	18 100kg
Date	09.03.2016
Inspector	Mikko Turunen

SANDVIK

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FIN-33311 TAMPERE, FINLAND
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DECLARATION OF CONFORMITY

PAINESÄILIÖ
PRESSURE VESSEL
DRUCKBEHÄLTER
TRYCKKÄRL

ilmasäiliö
air receiver
Luftbehälter
luftbehållare

1-039760
ID 03976018

valmistaja
manufacturer
Hersteller
tillverkare

GaV Group Oy
Pirkkala
Finland

TYPE EXAMINATION CERTIFICATE
Inspecta (0424)
6168/270/94
DIRECTIVE 2009/105/EY 16.09.2009

valmistusnumero
serial no
Herstell-Nr
tillverknings nr

80721-80740

sarjanumero
batch no
Serie-Nr
serie nr

368

valmistusvuosi
year of manufacture
Herstelljahr
tillverkningsår

2015

suurin käyttöpaine PS
max. working pressure PS
Max. Betriebsdruck PS
max. bruksdryck PS

16 bar

korkein käyttölämpötila Tmax
max. working temperature Tmax
max. Betriebstemperatur Tmax
max. brukstemperatur Tmax

115 °C

alin käyttölämpötila Tmin
min. working temperature Tmin
min. Betriebstemperatur Tmin
min. brukstemperatur Tmin

0 °C

tilavuus
volume
Volumen
volym

35 L

standardi
standard
Normen
standard

EN286-1

	pääty, end boden, gavel	lieriö, cylinder mantel, mantel	ohenemisvara corrosion allowance korrosionzuschlag korrosionstillägg
paksuus thickness Wanddicke godstjocklek	4 mm	4 mm	1 mm

säiliö on standardin EN 286-1 vaatimusten mukainen
The vessel is in accordance with the requirements of standard EN 286-1
Der Behälter ist in Übereinstimmung mit den Forderungen des Norm EN 286-1
behållaren fyller kraven enligt standard EN 286-1

säiliön paineenalaisille osille ei ole tehty eikä saa tehdä hitsaustöitä painekokeen jälkeen
there shall be no welding operations carried out on pressurized parts of vessel after pressure test
Kein Schweissarbeit darf auf druckausgesetzten Teilen des Behälters nach der Druckprobe ausgefuhren
inga svetsarbeten får utföras på tryckutsatta delar av behållaren efter tryckprovet

Pirkkala 26.05.2015

Jukka Rintala
Head of SBU

44856/15

GaV	**Painekoe** **Pressure test**	Todistus: Report. No.
Tark. Suunn. Inspection plan EN 286-1		Sivu Page
		Tarkastusluokka Inspection class
Tark.mom. Insp.mom.	Laitos Plant _____	Liite Appendix TO25
Tark.ohje Insp.spec.	Kohde Object _____	Työ n:o Work no. 44856

Kohde:
Opject:

Tilaaja: Purchaser	Gardner Denver	KPL PSC.	20	Tilaus n:o Order no.	--
Nimi Name:	IS 35/16 EN286-1	Valm.n:o Serial n.o	80721 - 80740	Piir.no: Drawing no.	1-039760
Merkinnät: Markings	80721 - 80740	Erä n:o Batch no.	368	Osan n:o Part no.	
Aine: Material:		Pinnan laatu: Surface condition:			
Valmistusvaihe: Fabric.condition		Lämpökäsittelytila: Heat treatment condition:			
Koeponnistus vedellä Hydrostatic testing	ESKOLA 26.5				
Käytetty vesi Used water					
Pitoaika Holding time	30				min
Koepaine Test pressure	2,4				Mpa(g)
Koestuslämpötila Testing temperature	18				°C
Koeponnistus ilmalla / heliumilla Pneumatic testing with air / helium					
Ilmasin Detector					
Pitoaika Holding time					min
Koepaine Test pressure					Mpa(g)
Koestuslämpötila Testing temperature					°C

Painekokeen tulos: Ok
Pressure test result: _____

_____

_____

_____

Pvm ja tarkastajan allekirjoitus Date and inspectors signature	26.5.2015 Tapio Mustakallio
Ulkopuolinen puolueeton tark.laitos Impartial inspection Institute	
Viranomainen tai tämän valtuuttama tarkastaja Authority or inspector authorized by authoritles.	

GaV Group

PRESSURE VESSELS COMPLIANT WITH STANDARD EN 286-1
6168/270/94
DIRECTIVE 2009/105/EU 16.09.2009

Installation and operating instructions

The vessel is meant to be used as a pressure vessel containing air or nitrogen. The pressure inside the vessel may not, under normal conditions, exceed the pressure of 16 bar.
The equipment is designed in accordance with a static calculation method and is designed for the kind of use that is considered as static in relation to pressure equipment.
The vessel must be provided with a warning device to prevent the set pressure from being exceeded.

The vessel must be installed so that water evacuation via a connector can be executed. Water evacuation is recommended at least once a week.

The inside of the vessel must be checked for corrosion and other possible wear at least every four years.

Bands used for fastening the vessel shall be installed so that the circumferential joints are to be seen.

No welding is to be implemented on the vessel for fasteners or other purposes.

Declaration of conformity

Pressure Equipment Directive 97/23/EC

GaV Group Oy

MANUFACTURER'S DECLARATION OF CONFORMITY FOR DESIGN, MANUFACTURE AND INSPECTION OF PRESSURE EQUIPMENT

Document No 2L2-7373

Pressure vessel	PRESSURE EQUIPMENT 250/12		
Identification no	80933-80942	Corrosion allowance	0
General arrangement drawing no	2L2-7373		
Year of manufacture	2015		
Volume	250	L	
Design pressure	12	bar	
Design temperature	-10...50	°C	
Contents	group 2 fluid		
Test pressure	26,5	bar	
Safety valves	Not to be delivered		
capacity			
Set pressure			
Date			

Conformity assesment module used H Category III

DESIGN

Name: GaV Group Oy

Address: Teollisuustie 2 33960 Pirkkala, FINLAND

design approval number G1946

or type approval number

Date 25.5.2010

MANUFACTURE

Manufacturer: GaV Group Oy

Address: Teollisuustie 2 33960 Pirkkala, FINLAND

Manufacture number 80933-80942

Certificate of Conformity - Date 9.6.2015

QUALITY SYSTEM

Manufacturer: GaV Group Oy

Address: Teollisuustie 2 33960 Pirkkala

Notified body INSPECTA TARKASTUS OY (0424), P.O.Box 1000, FIN-00581 HELSINKI

Notified Body monitoring Manufacturer's quality system Nobo No 0424.
Certificate No. 6336-04 of 17.06.2014.

The undersigned declares that the design, manufacture and inspection of this pressure vessel conforms with the requirements of PED 97/23/EC

Standards		
	Design	EN 13445-3: 2009
	Manufacture	EN 13445-4: 2012
	Final assesment	EN 13445-5: 2013

Date: 9.6.2015 Manufacturer: GaV Group Oy

GaV Group Oy

Signature:

Jukka Rintala
Head of Strategic Business Unit

GaV Group Oy

PRESSURE EQUIPMENT 250/12

INSTRUCTIONS FOR INSTALLATION, USE AND MAINTENANCE

1 BASIS FOR DESIGN

This pressure equipment has been designed in accordance with the pressure equipment directive 97/23/EU and it has been granted a CE safety stamp.

The pressure equipment is intended to be used with gases and liquids of group 2.

The properties of the contents must be such that the corrosion margin of the container of 0 mm remains sufficient throughout the lifetime of the product.

The equipment has been designed in accordance with a static calculation method and it is designed for the kind of use that is considered as static in relation to pressure equipment.

2 RECEIPT AND STORAGE

Ensure that the pressure equipment has not been damaged during transport and that it is otherwise in a condition required by the pressure equipment directive prior to implementation.

3 INSTALLATION

During installation of the pressure equipment, ensure that the equipment bed is sufficient in relation to the weight of the equipment. Loading and vibration that differ from normal use must not be transmitted through the pipes attached to the equipment.

The attachable pipes must be clean so that impurities are not transmitted to the container.

The container must be protected from impurities during installation.

When pressure testing the pipes, care must be taken not to subject the container to higher levels of pressure than that of the original pressure test.

4 FUNCTION OF THE PRESSURE EQUIPMENT

The equipment functions as a water tank

5 EQUIPMENT MAINTENANCE AND INSPECTIONS

In connection with inspections, the container must be cleaned and it must be ensured that the contents have not damaged the walls or the welds of the container.

6 IMPLEMENTATION AND USE OF THE VESSEL

The pressure vessel must be equipped with sufficient safety equipment that is dimensioned so that the pressure will not even momentarily exceed a level of 10% above the maximum pressure allowed while the safety equipment is in operation.

If the allowed threshold values can be exceeded in conditions that can reasonably be foreseen, the equipment must be equipped with adequate safety devices.

When positioning the equipment, care must be taken to allow for the emptying of the equipment.

When assembling equipment, the requirements of the pressure equipment directive must be observed.

In positioning, implementing and regularly maintaining the pressure equipment, the regulations of the country in question must be observed.

When pressure equipment is implemented in Finland, the decision 953/1999 of the Ministry of Trade and Industry on pressure equipment safety must be observed.

The owner or possessor of the pressure equipment is responsible for ensuring that the first regular maintenance is conducted in connection with the implementation for pressure equipment that is implemented and registered in Finland as regulated in the decision 953/1999 of the Ministry of Trade and Industry.

Manufacturer:	GaV Group Oy
Year of Manufacture:	2015
Identification of the Pressure Equipment:	PRESSURE EQUIPMEN
Volume:	250 L
Maximum Pressure Allowed:	12 bar
Minimum Pressure Allowed:	0 bar
Test Pressure:	26,5 bar
Minimum Temperature Allowed:	-10 °C
Maximum Temperature Allowed:	50 °C