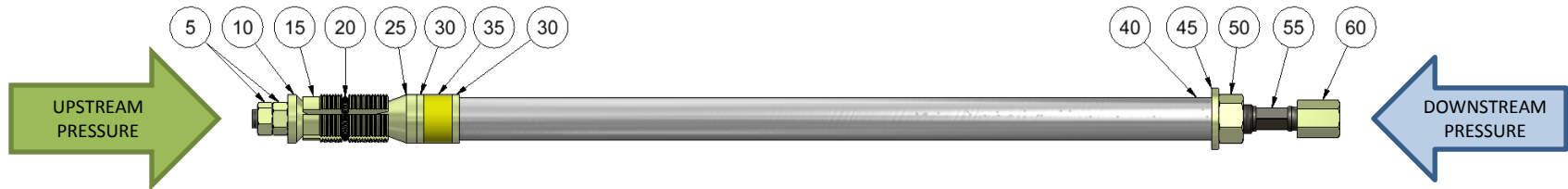


GripTight[®] Reverse Pressure 3/4" – 1" Test Plug Specifications

GTRP Specifications		
Downstream / Test Maximum Pressure	2250 PSIG	(155 BARG)
Upstream Maximum Pressure	1500 PSIG	(103 BARG)
Operational Temperature Range	-10°F thru 180°F	(-23°C thru 82°C)
Pipe Size Range	3/4" thru 1" – Various Schedules	
Standard Seal Material	Urethane	
Standard Plug Material	Aluminum and Zinc Plated Steel	
Required Pipe ID Condition	No Sediment, Scale, Pitting, or Corrosion.	
Compatible Test Media	Water, Air, Glycol (Low Temperature Applications)	
Compliance with Industry Standard Testing	ASME B16.5, ASME B31.1, ASME B31.3, and ASME PCC-2	



JAM NUT	BACK CONE	GRIPPER	RET_G SPRING	FRONT CONE	SEAL WASHER	SEAL	COMP TUBE	COMP WASHER	COMP NUT	SHAFT	PIPE CAP
5	10	15	20	25	30	35	40	45	50	55	60

GTRP Test Plug

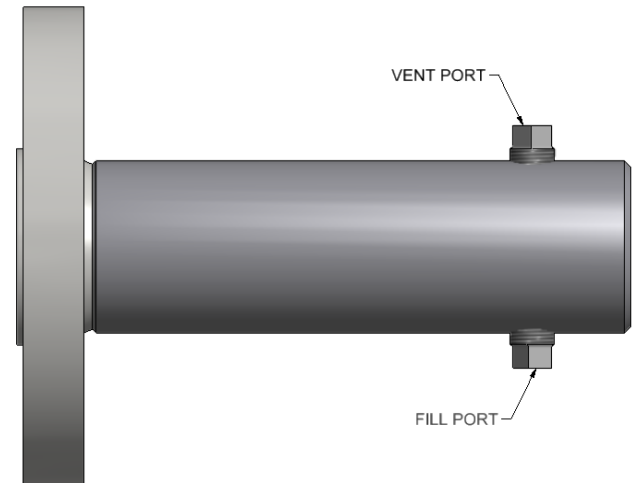
3/4" – 1" Technical Specifications



SALES NUMBER	PIPE SIZE	PIPE SCH	OVERALL LENGTH OF GTRP PLUG		PIPE ID - NOMINAL	PLUG OD	CLEARANCE BETWEEN SEAL AND NOMINAL PIPE ID		PIPE CAP HEX SIZE	SHAFT HEX SIZE	COMPRESSION NUT HEX SIZE	NORMAL INSTALLATION TORQUE		MAXIMUM INSTALLATION TORQUE		APPROXIMATE PLUG WEIGHT	
			in	mm			in	mm				in	in	Ft-lbs	N-m	Ft-lbs	N-m
GTRP-075P80	3/4	80	18 3/4	476	0.74	0.65	0.09	2.3	9/16	3/8	3/4	8	11	12	16	1.5	0.68
GTRP-075P40		40	18 3/4	476	0.82	0.72	0.10	2.5	9/16	3/8	3/4	8	11	12	16	1.5	0.68
GTRP-1P160	1	160	18 3/4	476	0.82	0.72	0.10	2.5	9/16	3/8	3/4	8	11	12	16	1.5	0.68
GTRP-1P80		80	18 3/4	476	0.96	0.84	0.12	3.0	9/16	3/8	3/4	12	16	16	22	1.5	0.68
GTRP-1P40		40	18 3/4	476	1.05	0.93	0.12	3.0	9/16	3/8	3/4	12	16	16	22	1.5	0.68

GTRP TEST PLUG			FLANGE CAP ASSEMBLY				
SALES NUMBER	PIPE SIZE	PIPE SCH	SALES NUMBER	FLANGE CLASS	PRESSURE RATING		NPT PORT SIZE (FILL AND VENT)
					PSIG	BARG	
GTRP-075P80	3/4	80	GTRP-075-150	150	450	31	1/8
GTRP-075P40		40	GTRP-075-300	300	1125	78	
			GTRP-075-600	600	2250	155	
GTRP-1P160	1	160	GTRP-1-150	150	450	31	1/8
GTRP-1P80		80	GTRP-1-300	300	1125	78	
GTRP-1P40		40	GTRP-1-600	600	2250	155	

NOTE: 3/4" AND 1" GTRP TEST PLUGS **MUST** BE USED WITH A FLANGE CAP ASSEMBLY.

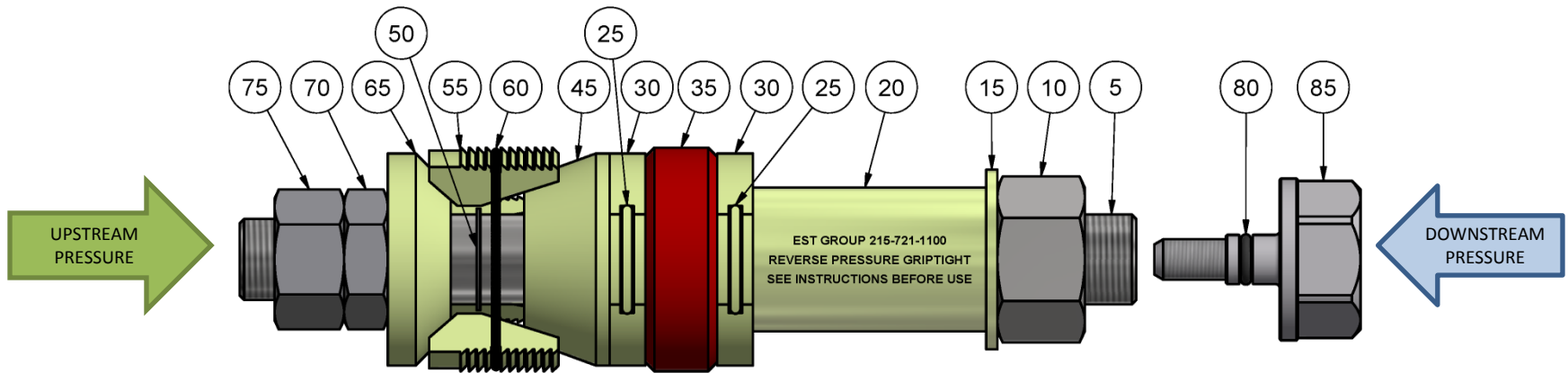


GripTight® Reverse Pressure 1-1/2" – 6" Test Plug Specifications

EST Group

GTRP Specifications

Downstream / Test Maximum Pressure	2250 PSIG	(155 BARG)
Upstream Maximum Pressure	1500 PSIG	(103 BARG)
Operational Temperature Range	-10°F thru 180°F	(-23°C thru 82°C)
Pipe Size Range	2" thru 6" – Various Schedules	
Standard Seal Material	Urethane	
Standard Plug Material	Zinc Plated Steel	
Required Pipe ID Condition	No Sediment, Scale, Pitting, or Corrosion.	
Compatible Test Media	Water, Air, Glycol (Low Temperature Applications)	
Compliance with Industry Standard Testing	ASME B16.5, ASME B31.1, ASME B31.3, and ASME PCC-2	



SHAFT	HEX NUT	HARD WASHER	COMP TUBE	O-RING	O-RING WASHER	SEAL	FRONT CONE	RET_G CLIP	GRIPPERS	RET_G SPRING	BACK CONE	JAM NUT	HEX NUT	CAP O-RING	PRESSURE CAP
5	10	15	20	25	30	35	45	50	55	60	65	70	75	80	85

GTRP Test Plug

1-1/2" – 6" Technical Specifications

SALES NUMBER	PIPE SIZE	PIPE SCH	OVERALL LENGTH OF GTRP PLUG		PIPE ID - NOMINAL	PLUG OD	CLEARANCE BETWEEN SEAL AND NOMINAL PIPE ID		NORMAL INSTALLATION TORQUE		MAXIMUM INSTALLATION TORQUE		APPROXIMATE PLUG WEIGHT	
			in	mm			in	in	in	mm	Ft-lbs	N-m	Ft-lbs	N-m
GTRP-15P160	1 1/2	160	8	203	1.34	1.19	0.15	3.8	25	34	40	54	4	2
GTRP-15P80		80	8	203	1.50	1.35	0.15	3.8	25	34	40	54	4	2
GTRP-15P40		40	8	203	1.61	1.46	0.15	3.8	25	34	40	54	4	2
GTRP-15P10		10	8	203	1.68	1.53	0.15	3.8	25	34	40	54	4	2
GTRP-15P5		5	8	203	1.77	1.61	0.16	4.1	25	34	40	54	4	2
GTRP-2PXXS	2	XXS	8	203	1.50	1.35	0.15	3.8	25	34	40	54	4	2
GTRP-2P160		160	8	203	1.69	1.53	0.16	4.1	25	34	40	54	4	2
GTRP-2P80		80	9 1/8	232	1.94	1.76	0.18	4.6	35	47	50	68	5	2
GTRP-2P40		40	9 1/8	232	2.07	1.89	0.18	4.6	35	47	50	68	5	2
GTRP-2P10		10	9 1/8	232	2.16	1.98	0.18	4.6	35	47	50	68	7	3
GTRP-2P5	5	9 1/8	232	2.25	2.07	0.18	4.6	35	47	50	68	7	3	
GTRP-25PXXS	2 1/2	XXS	8	203	1.77	1.61	0.16	4.1	25	34	40	54	4	2
GTRP-25P160		160	9 1/8	232	2.13	1.98	0.15	3.8	35	47	50	68	7	3
GTRP-25P80		80	9 1/8	232	2.32	2.13	0.19	4.8	35	47	50	68	9	4
GTRP-25P40		40	9 1/8	232	2.47	2.29	0.18	4.6	35	47	50	68	9	4
GTRP-25P10		10	9 1/8	232	2.64	2.46	0.18	4.6	35	47	50	68	9	4
GTRP-25P5	5	9 1/8	232	2.71	2.53	0.18	4.5	35	47	50	68	10	5	
GTRP-3PXXS	3	XXS	9 1/8	232	2.30	2.13	0.17	4.3	35	47	50	68	9	4
GTRP-3P160		160	9 1/8	232	2.63	2.46	0.17	4.3	35	47	50	68	9	4
GTRP-3P80		80	12 1/2	318	2.90	2.69	0.21	5.3	200	270	300	400	12	5
GTRP-15P40		40	12 1/2	318	3.07	2.86	0.21	5.3	200	270	300	400	12	5
GTRP-15P10		10	12 1/2	318	3.26	3.04	0.22	5.6	200	270	300	400	14	6
GTRP-15P5	5	12 1/2	318	3.33	3.11	0.22	5.6	200	270	300	400	16	7	
GTRP4PXXS	4	XXS	12 1/2	318	3.15	3.00	0.15	3.8	200	270	300	400	15	7
GTRP-4P160		160	12 1/2	318	3.44	3.29	0.15	3.8	200	270	300	400	16	7
GTRP-4P120		120	12 1/2	318	3.63	3.48	0.15	3.8	200	270	300	400	20	9
GTRP-4P80		80	12 1/2	318	3.83	3.63	0.20	5.1	200	270	300	400	22	10
GTRP-4P40		40	12 1/2	318	4.03	3.83	0.20	5.1	200	270	300	400	22	10
GTRP-4P10	10	12 1/2	318	4.26	4.06	0.20	5.1	200	270	300	400	25	11	
GTRP-4P5	5	12 1/2	318	4.33	4.13	0.20	5.1	200	270	300	400	27	12	
GTRP-6PXXS	6	XXS	19	483	4.90	4.70	0.20	5.1	400	540	900	1200	40	18
GTRP-6P160		160	19	483	5.19	4.99	0.20	5.1	400	540	900	1200	45	20
GTRP-6P120		120	19	483	5.50	5.30	0.20	5.1	400	540	900	1200	45	20
GTRP-6P80		80	19	483	5.76	5.56	0.20	5.1	400	540	900	1200	50	23
GTRP-6P40		40	19	483	6.07	5.87	0.20	5.1	400	540	900	1200	50	23
GTRP-6P10		10	19	483	6.36	6.16	0.20	5.1	400	540	900	1200	55	25
GTRP-6P5	5	19	483	6.41	6.21	0.20	5.1	400	540	900	1200	55	25	

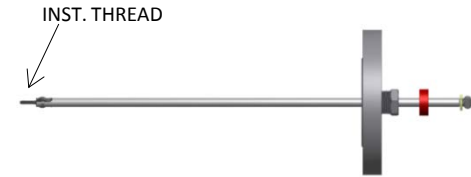
GTRP Installation Tools and Lanyard Assemblies

EST Group

GTRP TEST PLUG			INSTALLATION TOOL				LANYARD / FLANGE ASSEMBLY												
SALES NUMBER	PIPE SIZE	PIPE SCH	SALES NUMBER	OVERALL LENGTH		HEX	SALES NUMBER	FLANGE CLASS	PRESSURE RATING		INST. THREAD								
				in	mm				PSIG	BARG									
GTRP-15P160	1 1/2	160	GTRP-INST-050-13	19.4	494	3/4	GTRP-LA13-15-150	150	450	31	#10-32								
GTRP-15P80		80										GTRP-LA13-15-300	300	1125	78				
GTRP-15P40		40														GTRP-LA13-15-600	600	2250	155
GTRP-15P10		10																	
GTRP-15P5		5																	
GTRP-2PXXS	2	XXS	GTRP-INST-050-13	19.4	494	3/4	GTRP-LA13-2-150	150	450	31									
GTRP-2P160		160										GTRP-LA13-2-300	300	1125	78				
GTRP-2P80		80														GTRP-LA13-2-600	600	2250	155
GTRP-2P40		40																	
GTRP-2P10		10																	
GTRP-2P5	5																		
GTRP-25PXXS	2 1/2	XXS	GTRP-INST-050-13	19.4	494	3/4	GTRP-LA13-25-150	150	450	31									
GTRP-25P160		160										GTRP-LA13-25-300	300	1125	78				
GTRP-25P80		80														GTRP-LA13-25-600	600	2250	155
GTRP-25P40		40																	
GTRP-25P10		10																	
GTRP-25P5	5																		



GTRP-INST-YYY-13



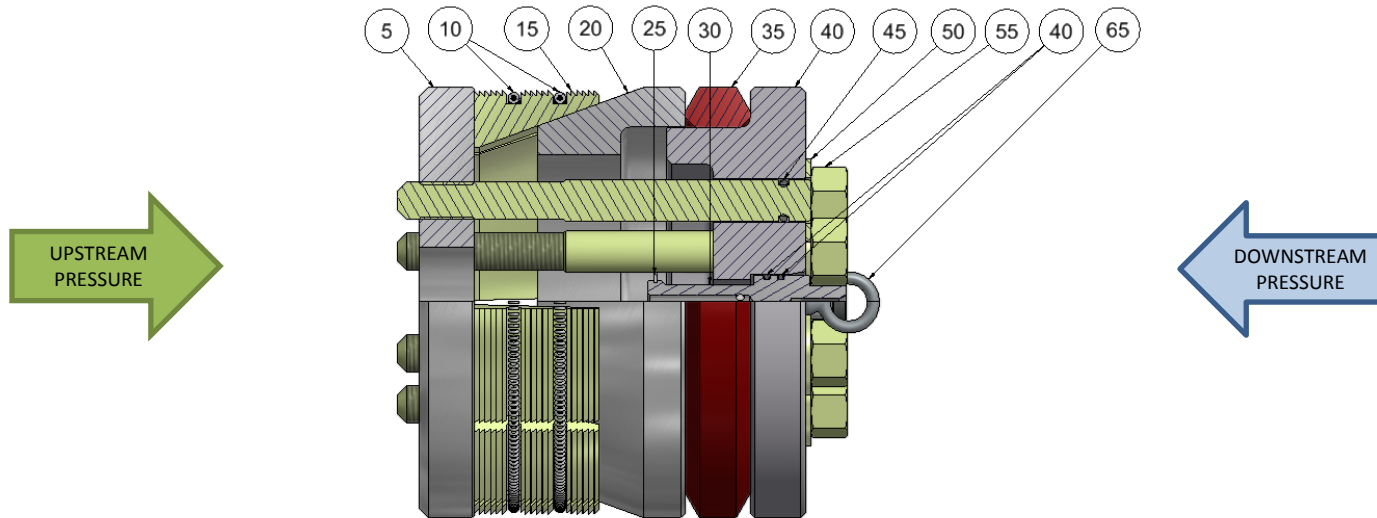
GTRP-LA13-YY-ZZZ

GTRP TEST PLUG			INSTALLATION TOOL				LANYARD / FLANGE ASSEMBLY												
SALES NUMBER	PIPE SIZE	PIPE SCH	SALES NUMBER	OVERALL LENGTH		HEX	SALES NUMBER	FLANGE CLASS	PRESSURE RATING		INST. THREAD								
				in	mm				PSIG	BARG									
GTRP-3PXXS	3	XXS	GTRP-INST-063-13	19.4	494	15/16	CONTACT EST GROUP FOR AVAILABILITY												
GTRP-3P160		160																	
GTRP-3P80		80					GTRP-INST-125-13	20.3	514	1 1/4									
GTRP-3P40		40																	
GTRP-3P10		10																	
GTRP-3P5	5																		
GTRP-4PXXS	4	XXS	GTRP-INST-125-13	20.3	514	1 1/4	GTRP-LA13-3-150	150	450	31	1/4 - 28								
GTRP-4P160		160										GTRP-LA13-3-300	300	1125	78				
GTRP-4P120		120														GTRP-LA13-3-600	600	2250	155
GTRP-4P80		80																	
GTRP-4P40		40																	
GTRP-4P10	10																		
GTRP-4P5	5																		
GTRP-6PXXS	6	XXS	GTRP-INST-200-13	20.3	514	2 1/4	GTRP-LA13-4-150	150	450	31									
GTRP-6P160		160										GTRP-LA13-4-300	300	1125	78				
GTRP-6P120		120														GTRP-LA13-4-600	600	2250	155
GTRP-6P80		80																	
GTRP-6P40		40																	
GTRP-6P10	10																		
GTRP-6P5	5																		

EXAMPLE: A GTRP2P40 being used to test a 300 lb. class flange would require one (1) GTRP-INST-063-13 installation tool and is compatible with (1) GTRP-LA13-2-300 lanyard assembly. Use of a Lanyard / Flange Assembly is not required, but is strongly recommended.

GripTight® Reverse Pressure 8" – 12" Test Plug Specifications

GTRP Specifications		
Downstream / Test Maximum Pressure	2250 PSIG	(155 BARG)
Upstream Maximum Pressure	0 PSIG	(0 BARG)
Operational Temperature Range	-10°F thru 180°F	(-23°C thru 82°C)
Pipe Size Range	8" thru 12" – Various Schedules	
Standard Seal Material	Urethane	
Standard Plug Material	Aluminum and Zinc Plated Steel	
Required Pipe ID Condition	No Sediment, Scale, Pitting, or Corrosion.	
Compatible Test Media	Water, Air, Glycol (Low Temperature Applications)	
Compliance with Industry Standard Testing	ASME B16.5, ASME B31.1, ASME B31.3, and ASME PCC-2	



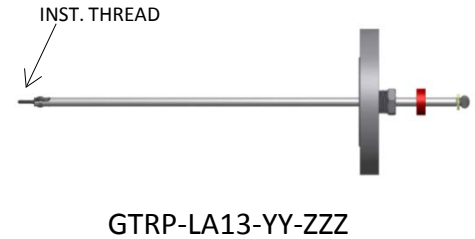
FAR SUPPORT	SPRING	GRIPPER	CONE	E-CLIP	PRESSURE PLUG	SEAL	NEAR SUPPORT	SHAFT O-RING	WASHER	SHAFT	O-RING	HOIST RING
5	10	15	20	25	30	35	40	45	50	55	60	65

GTRP Test Plug

8" – 12" Technical Specifications

SALES NUMBER	PIPE SIZE	PIPE SCH	OVERALL LENGTH OF GTRP PLUG		PIPE ID - NOMINAL		PLUG OD		CLEARANCE BETWEEN SEAL AND NOMINAL PIPE ID		HEX NUT WRENCH SIZE	NORMAL INSTALLATION TORQUE		MAXIMUM INSTALLATION TORQUE		APPROXIMATE PLUG WEIGHT	
			in	mm	in	mm	in	mm	in	mm		in	mm	Ft-lbs	N-m	Ft-lbs	N-m
GTRP-8P80	8	80	10.5	265	7.63	194	7.38	187	0.25	6.4	11/16	85	115	140	190	40	18.1
GTRP-8P40		40/STD	10.5	265	7.98	203	7.73	196	0.25	6.4	11/16	85	115	140	190	45	20.4
GTRP-8P10		10	10.5	265	8.33	212	8.08	205	0.25	6.4	11/16	85	115	140	190	45	20.4
GTRP-10P80	10	80	11.6	295	9.56	243	9.31	236	0.25	6.4	1 5/8	125	170	225	305	70	31.8
GTRP-10P40		40/STD	11.6	295	10.02	255	9.77	248	0.25	6.4	1 5/8	125	170	225	305	70	31.8
GTRP-10P30		30	11.6	295	10.14	258	9.89	251	0.25	6.4	1 5/8	125	170	225	305	75	34.0
GTRP-12P80	12	80	12.2	309	11.38	289	11.00	279	0.38	9.7	1 5/8	125	170	225	305	100	45.4
GTRP-12P40		40/STD	12.2	309	11.94/12.00	303/305	11.62	295	0.32/0.38	8.1/9.7	1 5/8	125	170	225	305	105	47.6
GTRP-12P20		20	12.2	309	12.25	311	11.87	301	0.38	9.7	1 5/8	125	170	225	305	110	49.9

GTRP TEST PLUG			LANYARD / FLANGE ASSEMBLY				
SALES NUMBER	PIPE SIZE	PIPE SCH	SALES NUMBER	FLANGE CLASS	PRESSURE RATING		INST. THREAD
					PSIG	BARG	
GTRP-8P80	8"	80	GTRP-LA13-8-150	150	450	31	1/4 - 28
GTRP-8P40		40	GTRP-LA13-8-300	300	1125	78	
GTRP-8P10		10	GTRP-LA13-8-600	600	2250	155	
GTRP-10P80	10"	80	GTRP-LA13-10-150	150	450	31	
GTRP-10P40		40	GTRP-LA13-10-300	300	1125	78	
GTRP-10P30		30	GTRP-LA13-10-600	600	2250	155	
GTRP-12P80	12"	80	GTRP-LA13-12-150	150	450	31	
GTRP-12P40		40	GTRP-LA13-12-300	300	1125	78	
GTRP-12P20		20	GTRP-LA13-12-600	600	2250	155	



GripTight® Reverse Pressure Technical References

DC2542 – EST Group 3/4” and 1” GripTight Reverse Pressure Operating Procedures

DC2533 – EST Group 1-1/2” thru 6” GripTight Reverse Pressure Operating Procedures

DC2535 – EST Group 8” thru 12” GripTight Reverse Pressure Operations Procedures

DC8011 – EST Group GripTight Reverse Pressure Product Brochure

DC8077 – EST Group GripTight Reverse Pressure Fact Sheet

ASME B16.5 – Pipe Flanges and Flanged Fittings

ASME B31.1 – Power Piping

ASME B31.3 – Process Piping

ASME PCC-2 – Repair of Pressure Equipment and Piping

Ayman M. Cheta & Richard Brodzinski (2007). Comparative Study for Stresses in Nozzle and Flange Welds Generated During Conventional Pressure Testing and Local Pressure Testing Using Bolted Devices. *Journal of Pressure Vessel Technology, Vol. 129 775-780*

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