CLEMTEX

Corrosion Control Equipment and Supplies

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Clemtex Air Dryers

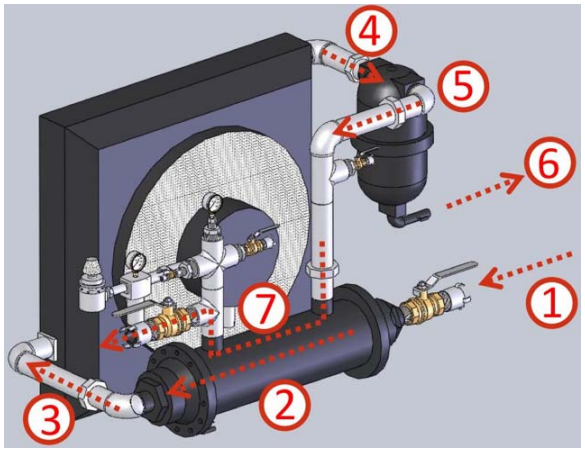
CFM	Mount	Part #
450	Skid	450SM
	Trailer	450TM
1000	Skid	1000SM
	Trailer	1000TM
1600	Skid	1600SM
	Trailer	1600TM
2100	Skid	2100SM
	Trailer	2100TM

The Clemtex Regenerative/Reheater Dryer is designed to cool compressed air, remove the moisture from the air and finally reheat the dried air to further increase the difference in dew point. Compressed air is directed into the first stage 'air to air' heat exchanger to store excess heat from the compressed air. This hot moisture laden air is then directed into the pneumatically driven fan cooled aluminum radiator where it is cooled and water vapor begins coagulating into large droplets. The cooled air is then directed through a coalescing filter to remove the moisture. This cool dry air is finally directed into the first stage 'air to air' heat exchanger where the air is reheated to further increase the difference in dew point of the air. This system includes a 2" air inlet, 2" hot air outlet, 3/4" hot air outlet and 3/4" cool air outlet.

Clemtex Regenerative Dryers are the most efficient dryers for portable blasting applications, and here's why:

1. ***180° Inbound moisture laden air*** - Air in from compressor: A standard screw air compressor will increase compressed air temperature 100° over ambient temperature
2. ***Air to Air Heat Exchanger*** - Inbound air heats exchanger to reheat air after cooling and moisture removal
3. ***180° Inbound moisture laden air to fan cooler***
4. ***90° Inbound moisture laden air*** - Air is cooled in a high efficiency, vacuum formed aluminum pneumatic fan radiator
5. ***Cooled dry air to heat exchanger***
6. ***Moisture exhaust*** - Moisture is removed from cooled inbound air thru a centrifugal trap
7. ***140° Heated dry air outlet to equipment*** - Cooled 90° dry air is heated to 140° hot dry air which further separates the temperature where moisture will occur.

***Example conditions: 80° ambient, 60° relative humidity



Cooling compressed air and extracting moisture does 50% of the job, an effective efficient dryer must also reheat the compressed air to further separate the air temperature where moisture will occur!

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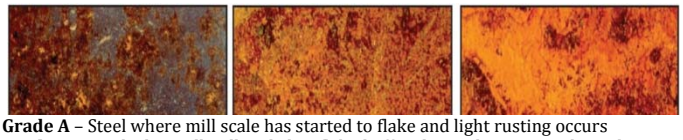
Degrees of Cleanliness Blast-Cleaned Surfaces

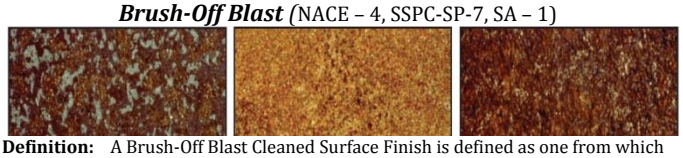
Condition of Steel

A **B** **C**



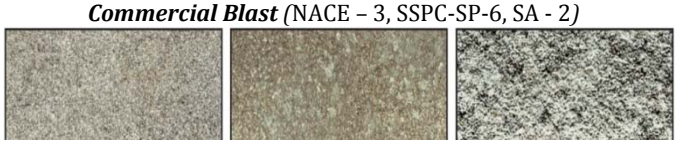
Grade A – Steel where mill scale has started to flake and light rusting occurs
Grade B – Steel where all mill scale has flaked off and complete rusting has taken place
Grade C – Steel where pitting and complete rusting has occurred

Brush-Off Blast *(*NACE – 4, SSPC-SP-7, SA – 1)



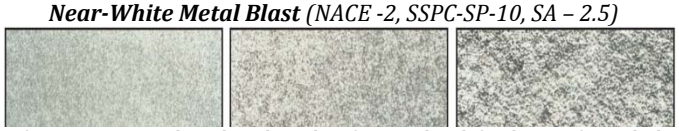
Definition: A Brush-Off Blast Cleaned Surface Finish is defined as one from which all oil, grease, dirt, rust scale, loose mill scale, loose rust and loose paint or coatings are removed completely but tight mill scale and tightly adhered rust, paint and coatings are permitted to remain provided that all mill scale and rust have been exposed to the abrasive blast pattern sufficiently to expose numerous flecks of the underlying metal fairly uniformly distributed over the entire surface.

Commercial Blast *(*NACE – 3, SSPC-SP-6, SA - 2*)*



Definition: A Commercial Blast Cleaned Surface Finish is defined as one from which all oil, grease, dirt, rust scale and foreign matter have been completely removed from the surface and all rust, mill scale and old paint have been completely removed except for slight shadows, streaks, or discolorations caused by rust stain, mill scale oxides or slight, tight residues of paint or coating that may remain; if the surface is pitted, slight residues of rust or paint may by found in the bottom of pits; at least two-thirds of each square inch of surface area shall be free of all visible residues and the remainder shall be limited to the light discoloration, slight staining or tight residues mentioned above.

Near-White Metal Blast *(NACE -2, SSPC-SP-10, SA – 2.5)*

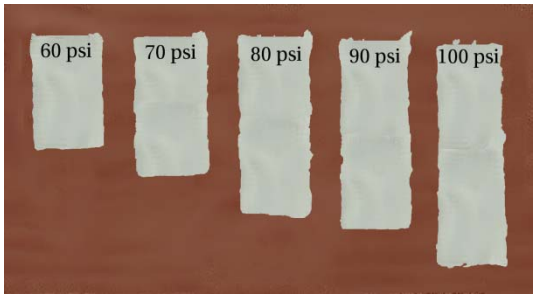


Definition: A Near-White Blast Cleaned Surface Finish is defined as one from which all oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint or other foreign matter have been completely removed from the surface except for very light shadows, very slight streaks or slight discolorations caused by rust stain, mill scale oxides, or light, tight residues of paint or coating that may remain. At least 95 percent of each square inch of surface area shall be free of all visible residues, and the remainder shall be limited to the light discoloration mentioned above.

White Metal Blast *(NACE – 1, SSPC-SP-5, SA - 3)*

Definition: A White Metal Blast Cleaned Surface Finish is defined as a surface with a gray-white, uniform metallic color, slightly roughened to form a suitable anchor pattern for coatings. The surface, when viewed without magnification, shall be free of all oil, grease, dirt, visible mill scale, rust, corrosion products, oxides, paint, or any other foreign matter.

The Importance of Nozzle Pressure



The image above shows an area blasted with different nozzle pressures. Each section was blasted for 5 minutes. This demonstrates how important it is to maintain correct nozzle pressure in order to increase production and decrease abrasive waste. Blasting at 60 psig for 5 minutes cleaned 5 ft² whereas blasting at 100 psig for 5 minutes cleaned 10 ft². "*Twice the area in the same amount of blast time.*"

Air Consumption of Nozzles

Nozzle Orifice	Pressure at the Nozzle (psi) 50	60	70	80	90	100	Air, Abrasive and HP Requirements
No. 2 (1/8")	11	13	15	17	18.5	20	Air (cfm)
	0.67	0.77	0.88	1.01	1.12	1.23	Abrasive (cu.ft./hr
	67	77	88	101	112	123	& lbs/hr)
	2.5	3	3.5	4	4.5	5	Compressor hp
No. 3 (3/16")	26	30	33	38	41	45	Air (cfm)
	1.5	1.71	1.96	2.16	2.38	2.64	Abrasive (cu.ft./hr
	150	171	196	216	238	264	& lbs/hr)
	6	7	8	9	10	10	Compressor hp
No. 4 (1/4")	47	54	61	68	74	81	Air (cfm)
	2.68	3.12	3.54	4.08	4.48	4.94	Abrasive (cu.ft./hr
	268	312	354	408	448	494	& lbs/hr)
	11	12	14	16	17	18	Compressor hp
No. 5 (5/16")	77	89	101	113	126	137	Air (cfm)
	4.68	5.34	6.04	6.72	7.4	8.12	Abrasive (cu.ft./hr
	468	534	604	672	740	812	& lbs/hr)
	18	20	23	26	28	31	Compressor hp
No. 6 (3/8")	108	126	143	161	173	196	Air (cfm)
	6.68	7.64	8.64	9.6	10.52	11.52	Abrasive (cu.ft./hr
	668	764	864	960	1052	1152	& lbs/hr)
	24	28	32	36	39	44	Compressor hp
No. 7 (7/16")	147	170	194	217	240	254	Air (cfm)
	8.96	10.32	11.76	13.12	14.48	15.84	Abrasive (cu.ft./hr
	896	1032	1176	1312	1448	1584	& lbs/hr)
	33	38	44	49	54	57	Compressor hp
No. 8 (1/2")	195	224	252	280	309	338	Air (cfm)
	11.6	13.36	15.12	16.8	18.56	20.24	Abrasive (cu.ft./hr
	1160	1336	1512	1680	1856	2024	& lbs/hr)
	44	50	56	63	69	75	Compressor hp

"We stock the most complete line of Corrosion Control Equipment and Supplies in the Southwest."