

DensPhase Pump for pneumatic conveying systems



Typical applications for DensPhase Pump include:

- Gypsum industry for the transfer of pre-calcined materials, additives, plaster and the re-cycling of scrap material
- Iron and Steel industry for the transfer of sinter fines, dust conveying, lump, granular and pulverised coal and furnace slag
- Non-ferrous industries for the transfer of reverts, metallurgical dusts, lime, granulated wire, zinc, lump, granular and pulverised coal and dusts
- Aluminium industry for the transfer of fresh alumina, fluorite, fine dusts, chips, packing lump carbon, machined carbon dust and recycled materials

Pneumatic Conveying

The pneumatic conveying process, enclosed and dust free, ensures material transfer complies with health and safety and other international regulations for industry and is less harmful to the environment than traditional mechanical methods.

The original Dome Valve®

Central to the operating efficiency of all Schenck Process pneumatic conveying systems, or as a stand alone valve is the original Dome Valve® which incorporates a unique and highly reliable inflatable sealing arrangement. The original Dome Valve® was developed by Clyde Materials Handling* in 1974 for use with pneumatic conveying systems and as a stand alone product.

Dense Phase Conveying Technology

The Schenck Process Dense Phase system capitalises on all the assets of pneumatic conveying: simplicity, reliability and flexibility. Ensuring minimal breakage of friable products, the extensive range of Dense Phase machines shares standard components, individually tailored to handle specific requirements of a wide range of materials.

DensPhase Pump

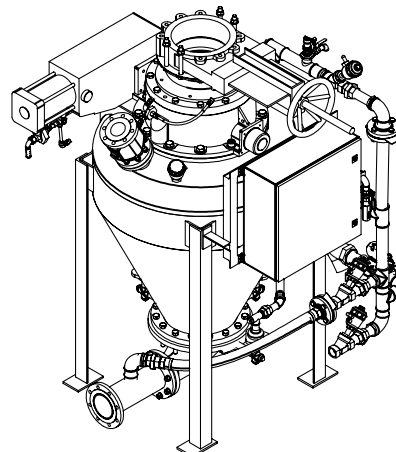
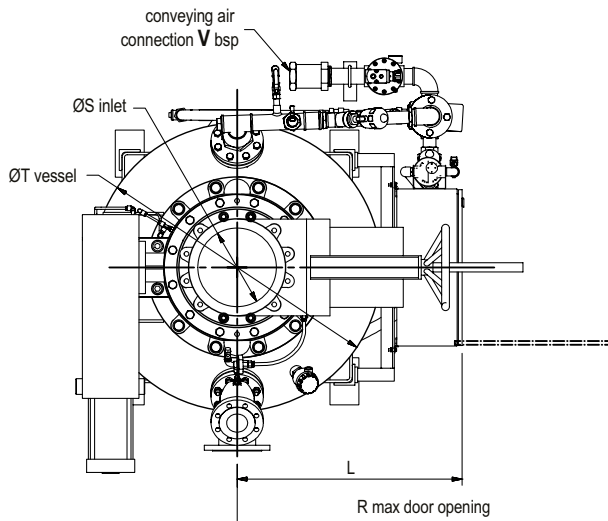
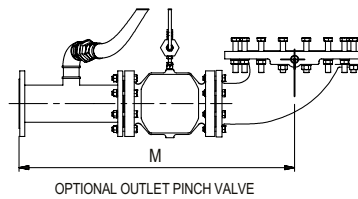
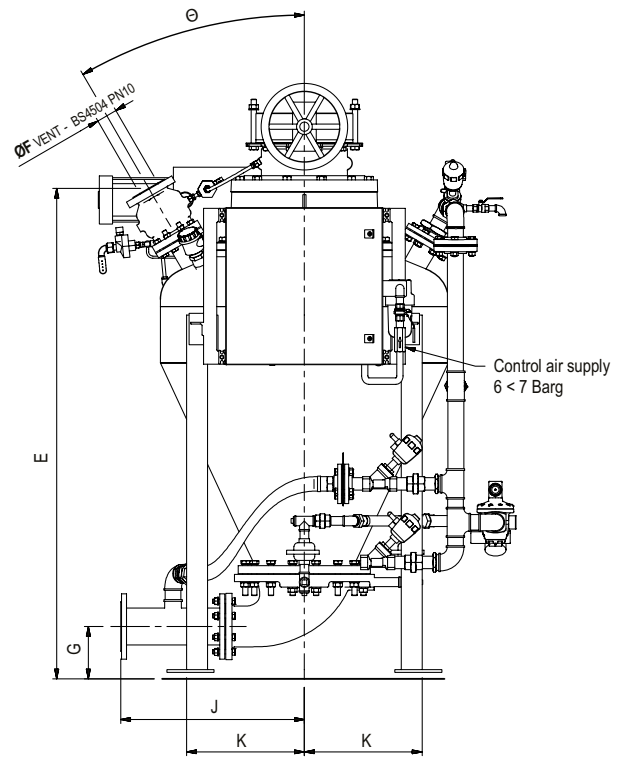
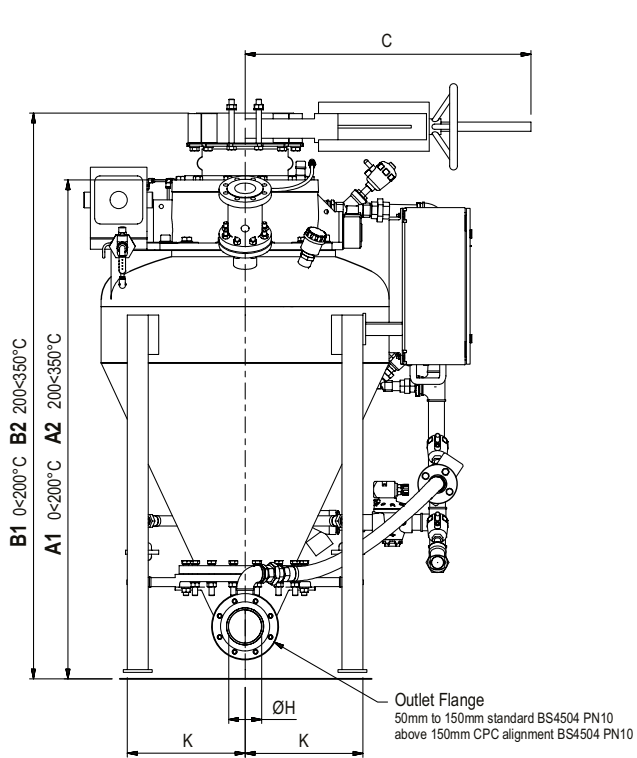
The Schenck Process DensPhase pump system is a simple, effective and highly reliable method of conveying material from a single collection point to either single or multiple reception hoppers.

The Schenck Process DensPhase Pump has been advanced to efficiently handle all types of bulk solid materials, from fine cohesive powders to wet lump coal. Equally suited to transfer either from storage into a process or from a process into storage. Systems are capable of operating at temperatures up to 480°C with throughput rates of up to 25t/hr and distances up to 200 metres. The inherent simplicity of the Dome Valve®, the only moving part in the Schenck Process DensPhase Pump system ensures the overall system reliability and low maintenance operation.

Standard Fabrication

DensPhase pump and vessel assemblies supplied complete with Dome Valve®, electro-pneumatic controls and air supply piping, strainer, pressure regulation and control equipment pre-piped and pre-wired ready for connection to isolated air and electric supplies.

- Vessels can be manufactured to most international pressure vessel codes and for a working pressure of 7 barg standard. Specific details are available on request.
- Vessels are free standing, special foundations are not required.
- Optional isolating valve and adapter are shown for reference only.
- Final working dimensions to be confirmed by certified drawings.



Product Range

DensPhase Pumps

Model	A1	A2	B1	B2	C	E	ØF	G	øH	J	K	L	M	R Max	øS	øT	V bsp	Ø°	Kg
2/4/2	926	946	1132	1152	520	931	1" BSP	133	50	392	215	625	573	1206	100	504	1"	30	253
2/8/2	914	934	1159	1179	792	1055	1" BSP	133	50	392	215	638	573	1220	200	580	1"	45	380
3/4/2	1070	1090	1276	1296	520	1068	1" BSP	133	50	392	269	679	573	1260	100	653	1"	30	320
3/8/2	987	1007	1232	1252	792	1128	50	133	50	392	259	669	573	1250	200	640	1"	45	415
4/8/2	1172	1192	1417	1437	792	1313	50	134	50	562	285	695	791	1276	200	700	1"	45	465
4/12/2	1153	1165	1423	1435	1092	1383	80	136	50	562	295	805	791	1386	300	760	1"	45	635
3/4/3	1129	1149	1335	1355	520	1142	1" BSP	145	80	512	270	680	741	1261	100	650	1 1/2"	30	375
3/8/3	960	980	1205	1225	792	1102	50	150	80	512	259	669	741	1250	200	640	1 1/2"	45	476
4/8/3	1172	1192	1417	1437	792	1313	50	148	80	512	285	695	741	1276	200	700	1 1/2"	45	512
4/12/3	1153	1165	1423	1435	1092	1383	80	150	80	512	295	805	741	1386	300	760	1 1/2"	45	716
8/8/3	1352	1372	1597	1617	792	1336	50	150	80	512	365	775	741	1356	200	850	1 1/2"	30	560
8/12/3	1447	1459	1717	1729	1092	1678	80	150	80	512	330	840	741	1421	300	756	1 1/2"	45	816
4/8/4	1209	1229	1454	1474	792	1350	50	160	100	562	285	695	845	1276	200	700	2"	45	560
4/12/4	1193	1205	1463	1475	1092	1423	80	165	100	562	295	805	845	1386	300	760	2"	45	741
8/8/4	1391	1411	1636	1656	792	1375	50	165	100	558	365	775	845	1356	200	850	2"	30	581
8/12/4	1487	1499	1757	1769	1092	1727	80	165	100	562	330	840	845	1421	300	756	2"	45	836
12/8/4	1687	1707	1932	1952	792	1687	50	190	100	562	410	820	845	1401	200	900	2"	30	700
12/12/4	1798	1810	2068	2080	1092	1757	80	190	100	562	410	820	845	1401	300	900	2"	30	950
20/8/4	1945	1965	2190	2210	792	1937	50	190	100	562	485	895	845	1476	200	1100	2"	30	825
20/12/4	2010	2022	2280	2292	1092	1961	80	190	100	562	485	895	845	1476	300	1100	2"	30	1025
8/8/5	1310	1330	1555	1575	792	1294	50	176	125	702	365	875	1053	1456	200	850	2 1/2"	30	624
8/12/5	1433	1445	1703	1715	1092	1670	80	204	125	702	330	840	1053	1421	300	756	2 1/2"	45	884
12/8/5	1593	1613	1838	1858	792	1594	50	200	125	702	480	890	1053	1471	200	900	2 1/2"	30	750
12/12/5	1711	1723	1981	1993	1092	1648	80	200	125	702	430	840	1053	1421	300	1100	2 1/2"	30	980
20/8/5	1858	1878	2103	2123	792	1849	50	200	125	702	445	865	1053	1446	200	1100	2 1/2"	30	900
20/12/5	1923	1935	2193	2205	1092	1874	80	200	125	702	450	860	1053	1441	300	1100	2 1/2"	30	1100
30/8/5	2111	2131	2356	2376	792	2082	50	201	125	702	510	915	1053	1516	200	1200	2 1/2"	30	1000
30/12/5	2183	2195	2453	2465	1092	2121	80	202	125	702	510	935	1053	1516	300	1200	2 1/2"	30	1220
12/8/6	1654	1674	1899	1919	792	1654	50	215	150	703	480	890	1124	1471	200	900	3"	30	800
12/12/6	1781	1793	2047	2059	1092	1724	80	224	150	703	430	840	1124	1402	300	1100	3"	30	1125
20/8/6	1926	1946	2171	2191	792	1914	50	220	150	703	455	880	1124	1461	200	1100	3"	30	1050
20/12/6	1988	2000	2254	2266	1092	1937	80	219	150	703	450	885	1124	1466	300	1100	3"	30	1150
30/8/6	2176	2196	2421	2441	792	2147	50	220	150	703	510	935	1124	1516	200	1200	3"	30	1075
30/12/6	2248	2260	2514	2526	1092	2184	80	221	150	703	510	935	1124	1516	300	1200	3"	30	1275
50/8/6	2540	2560	2785	2805	792	2500	50	220	150	703	610	1035	1124	1616	200	1400	3"	30	1275
50/12/6	2622	2634	2892	2904	1092	2542	80	220	150	703	610	1035	1124	1616	300	1400	3"	30	1500
20/8/8	1877	1897	2122	2142	792	1867	50	244	200	804	455	865	1360	1446	200	1100	4"	30	1050
20/12/8	1941	1953	2211	2223	1092	1892	80	244	200	804	460	860	1360	1441	300	1100	4"	30	1250
30/8/8	2127	2147	2372	2392	792	2100	50	245	200	804	560	935	1360	1516	200	1200	4"	30	1100
30/12/8	2201	2213	2471	2483	1092	2139	80	245	200	804	560	935	1360	1516	300	1200	4"	30	1375
50/8/8	2509	2529	2754	2774	792	2467	50	260	200	804	610	1020	1360	1601	200	1400	4"	30	1425
50/12/8	2639	2651	2909	2921	1092	2556	80	310	200	804	610	1020	1360	1601	300	1400	4"	30	1650
70/12/8	2823	2835	3093	3105	1092	2748	80	245	200	804	710	1120	1360	1701	300	1600	4"	30	1850

Custom applications available on request

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