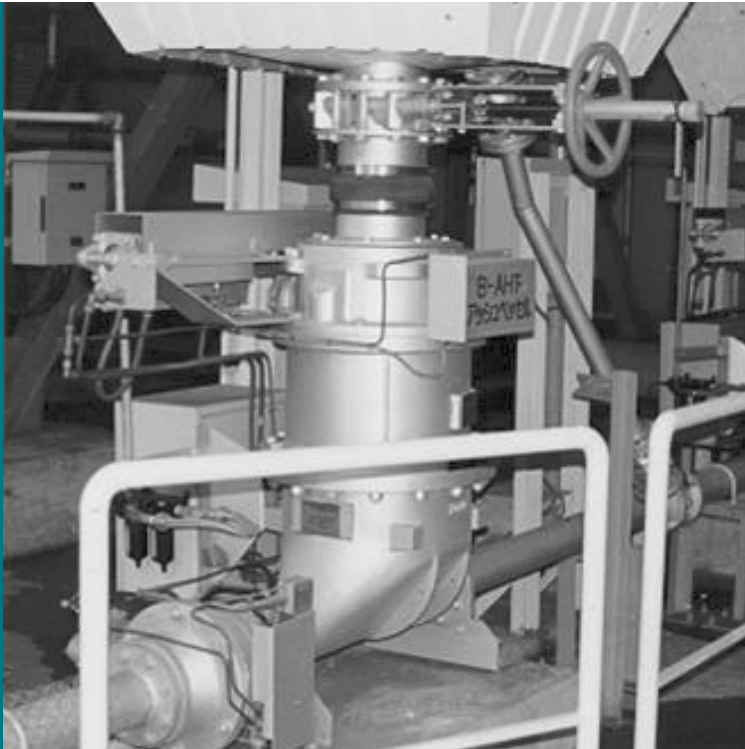


Multi Dense Phase



Fly Ash Handling

The Coperion method of fly ash handling is clean, efficient and fully enclosed, with exceptional reliability and requiring minimum maintenance. Pneumatic operation of the system saves costs, increases productivity and improves environmental conditions.

Unique Dense Phase technology, specific to the needs of the power industry, demonstrates worldwide proficiency in safety and economically handling high volumes of ash generated by electrostatic precipitators or bag filters. Segregation of dry fly ash from furnace bottom ash significantly increases the marketability and value of the ash product.

In operation, ash collects in the precipitator hopper above the Multi Dense Phase vessel. At the appropriate level, the Dome Valve®, situated at the top of the vessel, automatically opens, accepts the ash, and closes. The inflatable seal providing a positive barrier against the pneumatic conveying pressure.

At high material to air ratios and at a conveying velocity of below 5 m/sec, fully automatic operation of the system ensures the precipitator hoppers remain in an empty condition preventing traditional caking problems.

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 Coperion 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.

Multi Dense Phase

Originally developed in the 1970's for the power industry, the Multi Dense Phase has been advanced to reliably handle a wide variety of ash from economisers, air heaters, electrostatic precipitators and waste incinerators. The Multi Dense Phase system is a simple, effective and highly reliable method of conveying ash from single or multiple collection points to either single or multiple reception silos. The Dome Valve® being the only moving part in the vessel ensures system reliability and low maintenance operation.

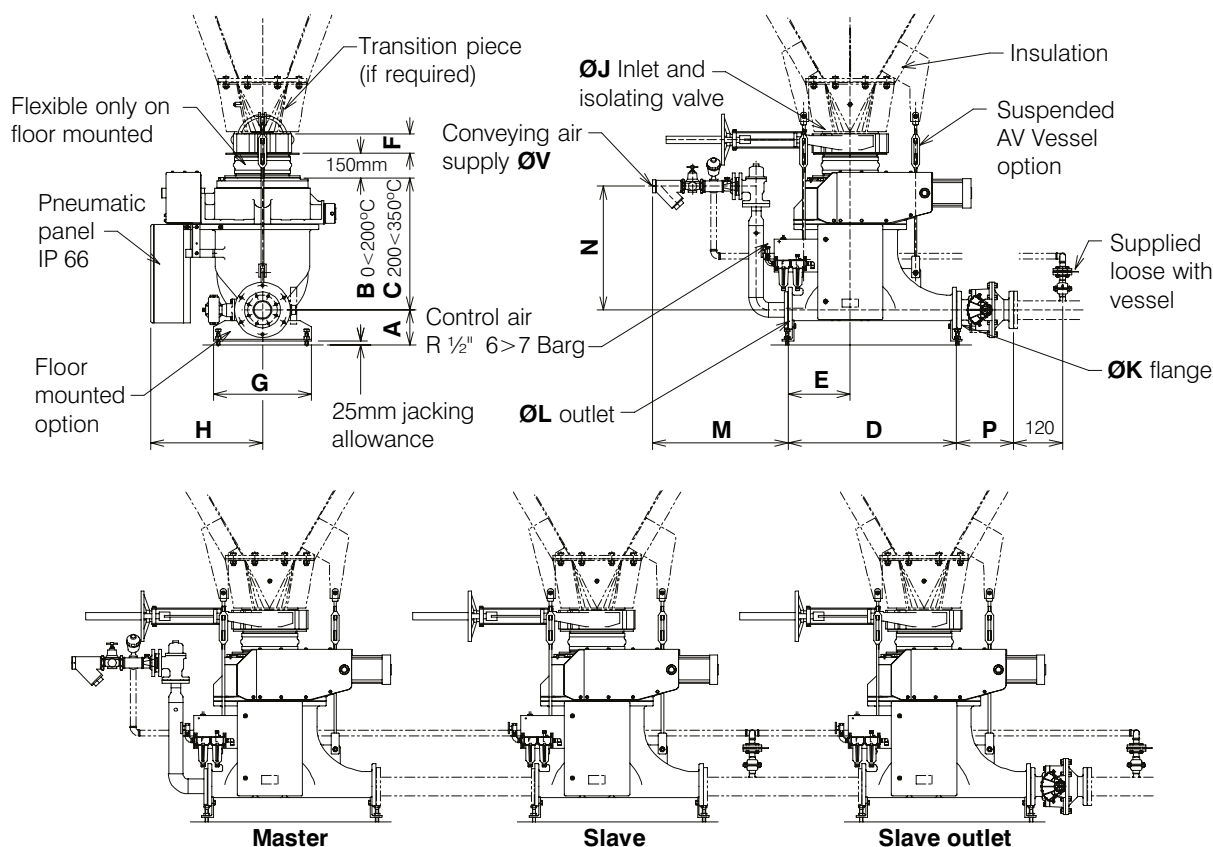
Even with its low height Multi Dense Phase systems are capable of operating at temperatures up to 480 °C with throughput rates of up to 100 t/hr and distances up to 200 metres. Originally designed for conveying of fly ash from multi outlet precipitators or bag filters on power stations, the same Multi Dense Phase technology can be used with other materials in other industries where material is to be conveyed from multi outlet precipitators, bag filters or multiple feed points.



Standard Construction

Multi Dense Phase assemblies supplied complete with Dome Valve®, electro-pneumatic controls and pre-piped and prewired ready for connection to isolated air and electrical supplies.

- Vessels are constructed from a one piece grey cast or SG iron and can be manufactured in accordance with EN13445 or ASME VIII and are for working pressures of 7 barg standard. Other specifications and pressures are available.
- Vessels are either free standing or suspended from the hopper outlet, special foundations are not required.



Dimensions - (mm) : Apply to PHO - 100°C maximum & PHV - 200°C maximum																
Model	Øpipe	A	B	C	D	E	F	G	H	ØJ	ØK	ØL ¹	M ²	N ²	P ³	KG*
1.5/8	80	150	627	647	786	286	92	400	610	200	80	100	730	644	380	320
1.5/8	100	150	627	647	786	286	92	400	610	200	100	100	730	644	350	320
1.5/12	80	150	694	706	910	355	117	400	725	300	80	100	730	667	380	450
1.5/12	100	150	694	706	910	355	117	400	725	300	100	100	730	667	350	450
2.0/8	80	150	669	689	878	350	92	400	610	200	80	100	730	668	380	360
3.0/8	100	260	729	749	1030	380	92	540	736	200	100	125	891	655	350	470
3.0/8	125	270	718	738	1030	380	92	540	736	200	125	125	891	648	450	470
3.0/12	100	215	808	820	1030	380	117	540	770	300	100	125	828	757	350	650
3.0/12	125	245	808	820	1030	380	117	540	770	300	125	125	828	757	450	650
4.0/12	100	215	958	970	1020	375	117	540	770	300	100	100	950	887	350	680
5.0/12	125	245	886	898	1105	455	117	700	745	300	125	150	847	760	450	700
5.0/12	150	245	886	898	1105	455	117	700	745	300	150	150	847	760	450	700
6.0E/8	125	270	1232	1252	1030	380	92	540	736	200	125	125	1110	1150	450	520
7.0/12	150	260	966	978	1155	480	117	870	734	300	150	150	1245	760	450	800
8.0/12	150	260	1088	1100	1155	480	117	1070	734	300	150	150	930	947	450	800
10.0E/12	125	245	1473	1485	1105	455	117	700	745	300	125	150	847	1347	450	750
10.0/12	200	285	931	943	1420	575	117	1070	795	300	200	200	1105	875	486	900
12.0/12	200	300	1133	1145	1350	540	117	910	810	300	200	200	1375	892	486	1000
13.0/12	250	345	1056	1068	1420	575	117	1070	795	300	250	250	1105	1000	566	1100

¹ : Outlet diameter. ² : Master vessels only. ³ : Slave outlet vessels only. * : Slave vessels only

Coperion

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