Linatex Hydrocyclone G4

LINATEX

OUR STRENGTH. YOUR ENDURANCE.

MOULDED | PROCESS EQUIPMENT | SERVICE | HOSE | SHEET

The Linatex Hydrocyclone G4 range provides extremely efficient solutions for even the most challenging extraction applications.

Linatex Hydrocyclone G4

At Linatex, we have earned our reputation as a leading solutions provider to the mining and mineral extraction industries. With over 50 years experience in the supply and servicing of hydrocyclones, the Linatex Hydrocyclone G4 range is our most innovative.

This comprehensive range is the culmination of our extensive operational experience, intense research and development, and continual innovation.

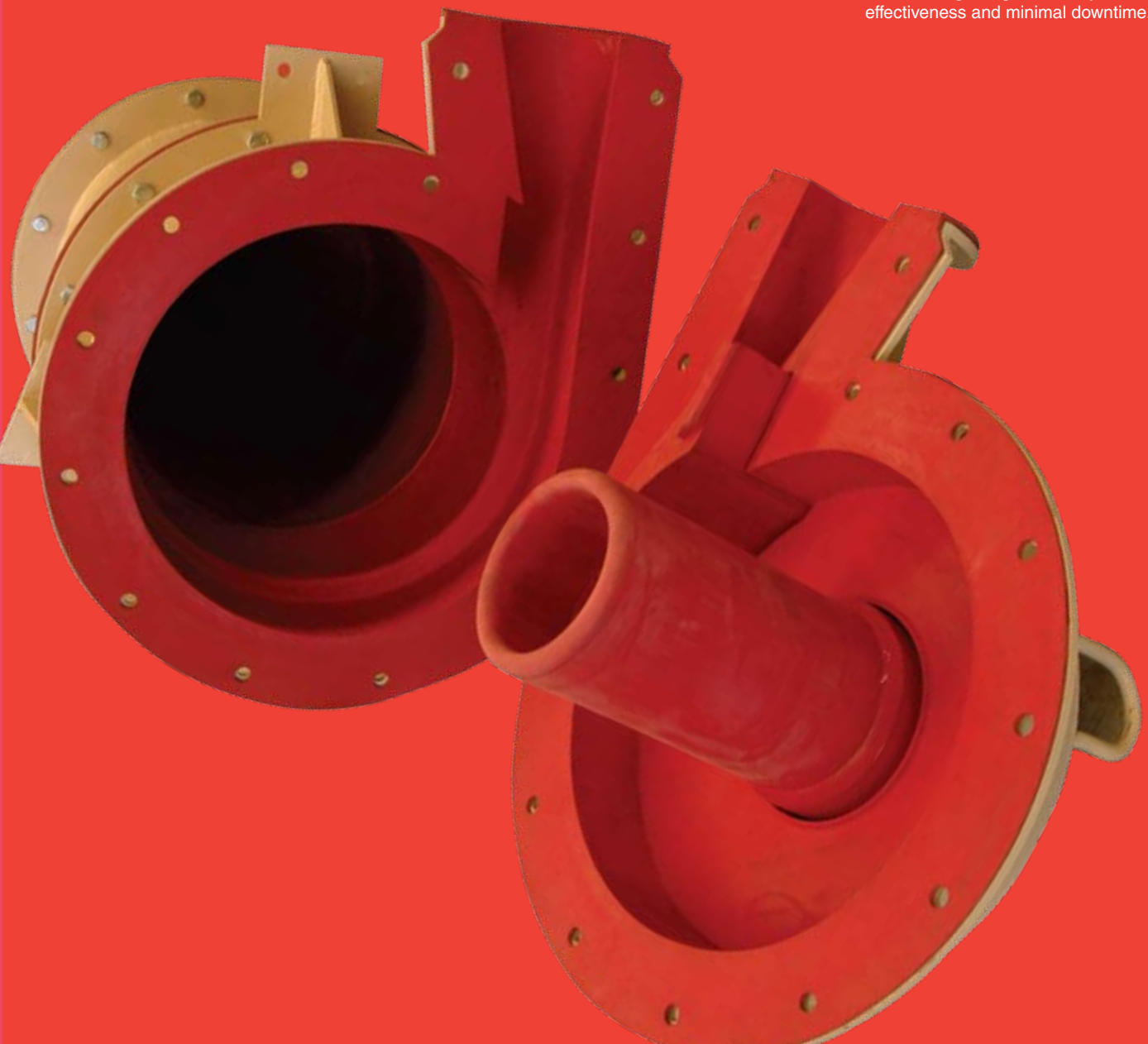
The unique inlet wedge design of the Linatex Hydrocyclone G4 provides operational flexibility by allowing variation of the inlet area.

This in turn delivers high efficiency of classification which maximises the separation performance of the Hydrocyclone G4.

Our expert operational team draws on their vast global experience to assist in your cyclone selection and will help customise cluster configurations to suit your project.

Through the use of Computational Fluid Dynamics (CFD) and three dimensional modelling, our Linatex experts provide a variety of detailed scenarios from which the most appropriate solution can be customised to meet your precise needs.

You can be assured that by investing in a customised Linatex Hydrocyclone G4, you are investing in high efficiency, maximum cost effectiveness and minimal downtime.

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Linatex Hydrocyclone G4

FEATURES

The Linatex Hydrocyclone G4 has three unique features that guarantee a significant industry advantage:

1. An Interchangeable Inlet Wedge
2. An Involute Swept Entry Design
3. Drop-in Linatex Replacement Liners

Interchangeable Inlet Wedge

- The interchangeable inlet wedge is a unique feature of the Linatex Hydrocyclone G4. The wedge enables quick and easy variation of inlet size. This provides the ability to fine tune the hydrocyclone performance without physically removing it from the process line, thereby minimising downtime.
- Replacement inlet wedges can be used to maintain performance without the need to change out full liners.

Involute Swept Entry Design

- The involute swept entry design produces a smooth, ribbon like flow regime inside the hydrocyclone. This reduces turbulence and delivers sharper classification.

Drop-in Linatex Replacement Liners

- Linatex wear liners, manufactured from proven superior Linatex rubber, reduce maintenance cost due to their superior resistance to abrasion.
- Drop-in Linatex replacement liners facilitate economical onsite maintenance.
- Improved liner wear performance maintains internal geometries and, in turn, operational separation efficiencies for longer periods.
- A large range of alternate rubber compounds are available including chemical and oil resistant grades.
- Technical support from experienced engineers equipped with a wealth of global operating experience backs up each Linatex Hydrocyclone G4 installation.
- Proven performance using computer modelling based on proven mathematical techniques.
- Ceramics are available for lower cones and spigots, and high chrome iron liners are available for dense media separation duties.

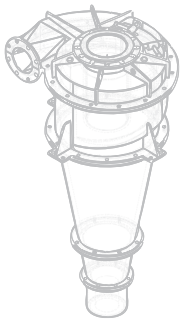
A wide range of Linatex Hydrocyclone G4 sizes and configurations are available to meet all customer needs.

Linatex Hydrocyclone G4

GENERAL APPLICATIONS

The Linatex Hydrocyclone G4 range consists of three different models, specifically designed for different applications in the mining and mineral extraction industries. The **Linatex Hydrocyclone G4 range** includes:

Hydrocyclone G4 CL



Classification

The **Linatex Hydrocyclone G4 CL** range has proven to be a very economical means of classification, especially in closed circuit grinding operations.

Coarse material that reports to the spigot is returned for further grinding, whilst fine material in the overflow continues for further processing such as leaching, flotation or gravity concentration.

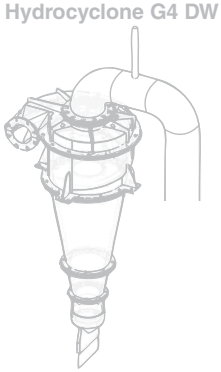
Fines Recovery / De-Gritting

The **Linatex Hydrocyclone G4 CL** range is also used in open circuit applications, such as recovery of very fine solids utilising small hydrocyclones that operate at higher than normal pressure.

The hydrocyclone diameter is determined by the particle size to be recovered, whilst total throughput determines the number of hydrocyclones required.

Clusters of hydrocyclones may also be used to remove oversize grits from cement, clay, drilling mud, effluent and other slurries, as well as de-sliming duties.

Hydrocyclone G4 DW



Dewatering and Desliming

The key to the success of the **Linatex Hydrocyclone G4 DW** lies in the discharge regulator which is fitted below the spigot on the underflow.

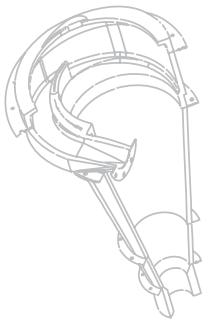
When feed is introduced into the **Linatex Hydrocyclone G4 DW**, the coarser solids report to the spigot where the density and discharge rate of the solids are controlled by the underflow regulator.

Linatex Hydrocyclone G4 DW is applied to dewatering and desliming mineral sands, concrete sands, iron sands, iron ore fines, phosphate rock and coal washery fines in mineral processing circuits, including back-fill feed preparation.

An extended overflow pipe induces a siphon effect which in turn creates a vacuum. This vacuum holds the discharge regulator closed trapping the majority of the water, silts and clays. When the weight of solids inside are sufficient to overcome the vacuum the discharge regulator is forced open and allows discharge of the solids.

The control of the material reporting to the underflow results in a much higher underflow density than otherwise obtainable.

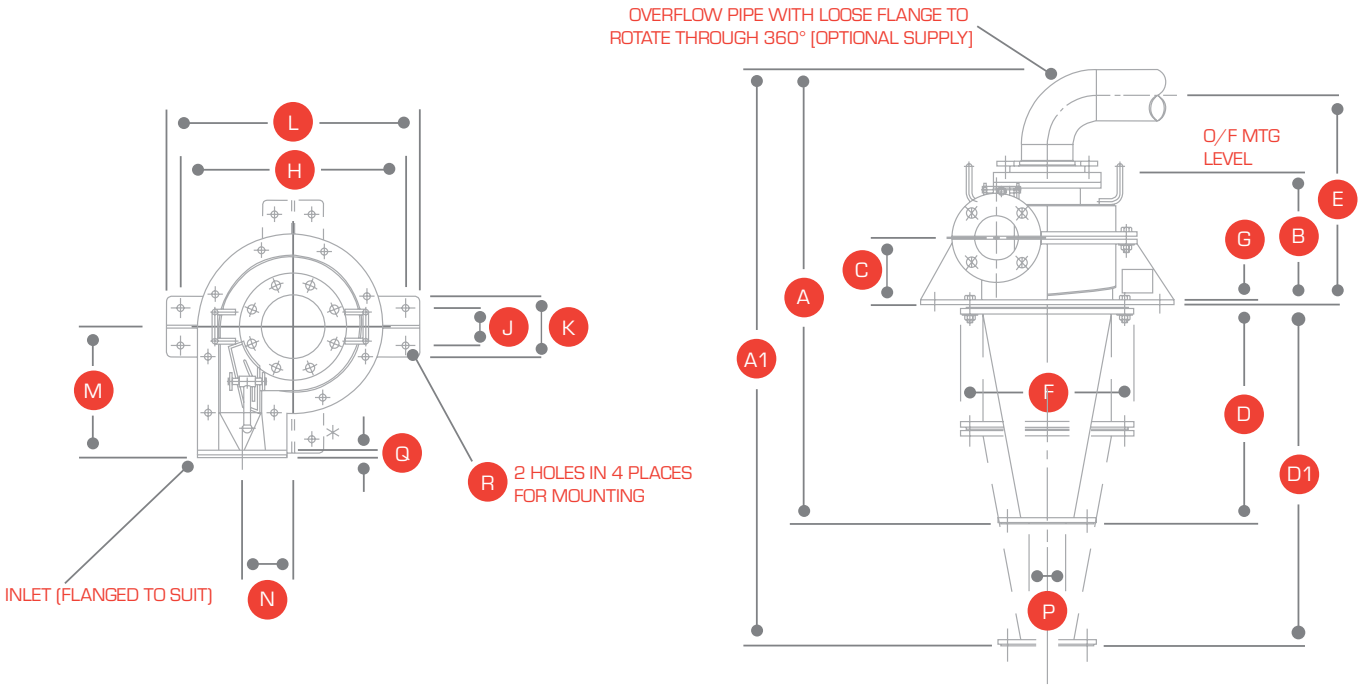
Hydrocyclone G4 DM



Dense Media Separation

Linatex Hydrocyclone G4 DM is widely used in the coal, iron ore and diamond industries for dense media separation (DMS); fine ore classification, media recovery and media densification.

The **Linatex Hydrocyclone G4 DM** range is available in sizes from 200mm to 1150mm to process a full range of feed tonnages and are manufactured from 27% chrome iron for maximum wear resistance.



150 to 500 Hydrocyclones 10°, 15° & 20° Cone Angles *

WITH CYLINDRICAL SECTION

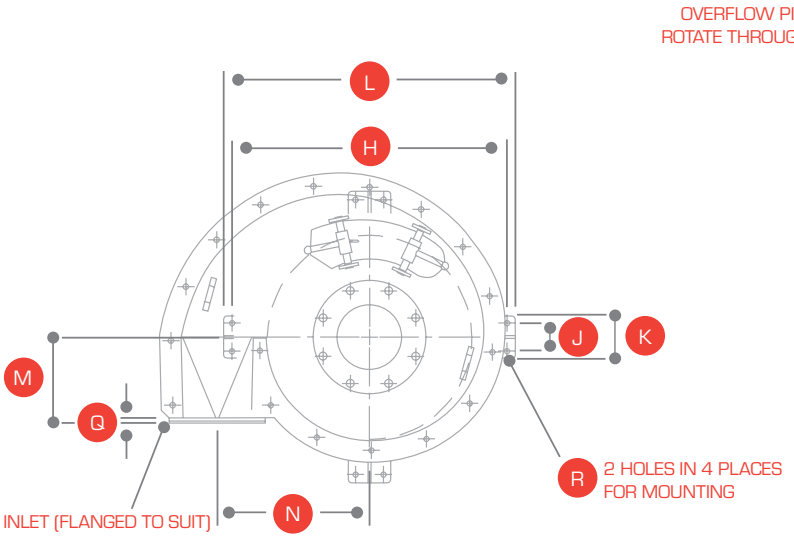
SIZE	A	B	C	D	E	F dia.	G	H	J	K	L	M	N	P dia.	Q	R dia.	Inlet N.B.	Vol.	Mass	A1	D1	Vol.	Mass
100-10	779	217	60	562	217	173	-	-	-	-	274	153	41	-	-	-	20 32	2.5	-	929	712	3.6	-
150-10	781	205	98	415	327	290	10	400	80	**130**	460	192	66	80	14	15	50	9	38	978	616	12.6	47
250-10	1468	282	143	966	447	370	10	480	80	**130**	540	280	109	80	16	18	80	35	69	1728	1226	52	90
250-20	971	282	143	469	447	370	10	480	80	**130**	540	280	109	80	16	18	80	44	57	1231	729	61	78
375-10	1862	370	194	1186	601	510	10	620	100	**150**	680	391	145	150	18	18	125	96	145	2246	1570	133	197
375-20	1275	370	194	599	601	510	10	620	100	**150**	680	391	145	150	18	18	125	60	115	1659	983	97	167
500-15	2165	546	305	1189	863	650	12	760	100	**150**	820	480	203	150	18	18	150	96	208	2275	1800	248	318

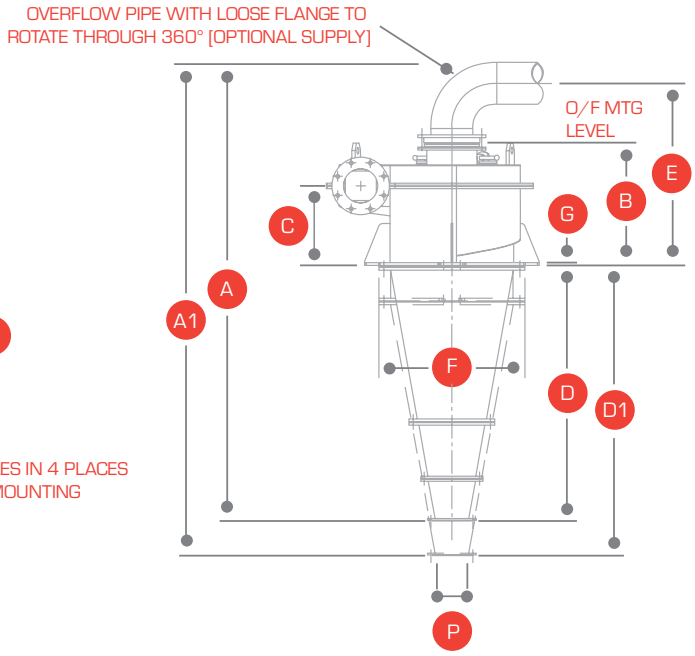
* **UNITS = LENGTH (MM), WEIGHT (KG), VOLUME (LITRES)**

ALL DIMENSIONS ARE NOMINAL. WE RESERVE THE RIGHT TO MODIFY WITHOUT NOTICE.

INLET AND DISCHARGE FLANGES CAN BE SUPPLIED TO DIFFERENT STANDARDS. CONTACT LINATEX AT TIME OF SPECIFICATION.

Linatex Hydrocyclone G4





660, 840 & 1200 Hydrocyclones 20° Cone Angles *

WITH CYLINDRICAL SECTION

SIZE	A	B	C	D	E	F dia.	G	H	J	K	L	M	N	P dia.	Q	R dia.	Inlet N.B.	Vol.	Mass	A1	D1	Vol.	Mass
660-20	2721	723	474	1520	1076	870	16	980	100	**150**	1040	306	543	150	18	19	200	448	557	2929	1728	516	625
840-20	3341	1076	804	1618	1546	1028	16	1000	120	**180**	1060	392	684	250	22	24	250	897	748	-	-	-	-
1200-20	3828	1220	822	2608	-	1478	25	1640	140	**260**	1800	524	941	375	22	26	400	-	1400	-	-	-	-

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PROVEN PERFORMANCE

The partition curve (below) shows the efficiency benefit of the Linatex Hydrocyclone G4 compared to standard hydrocyclones.

The steeper curve associated with the Linatex Hydrocyclone G4 proves a higher separation efficiency known as the Alpha number. This increased efficiency leads to less oversized particles in the overflow whilst reducing bypass of fine particles to the underflow.

SERVICE AND MAINTENANCE

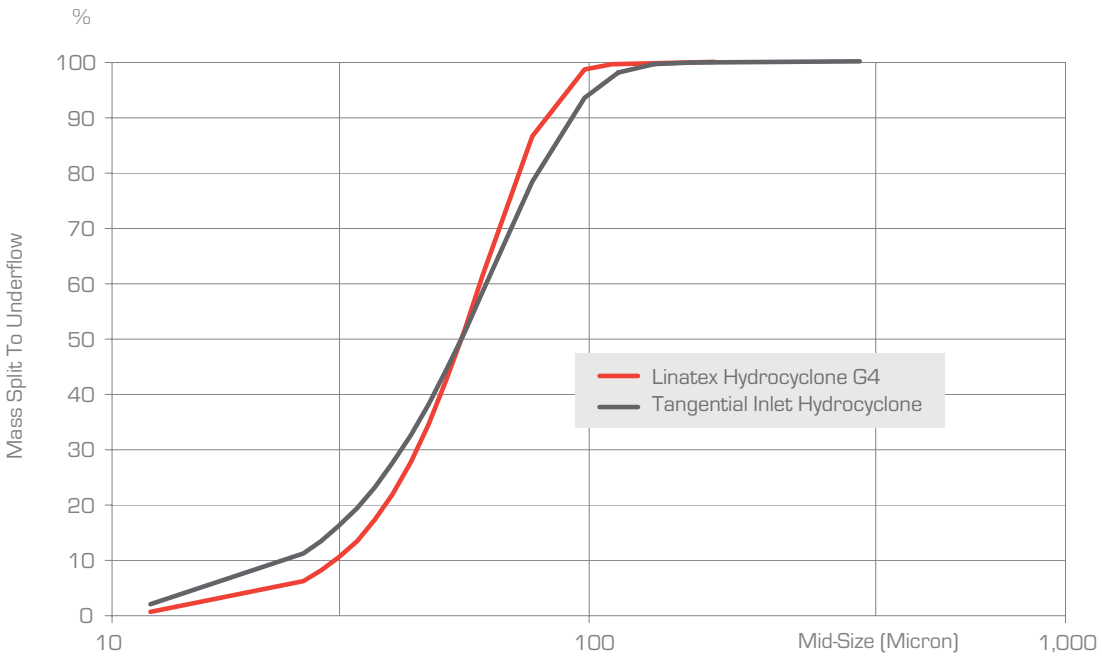
As a truly global company Linatex has a manufacturing and distribution presence on every continent, enabling us to meet your needs, no matter where you are.

Our regional design and support teams bring together world class expertise with detailed local knowledge.

Take advantage of our expert operational know-how to assist with the selection of your Linatex Hydrocyclone G4.

At Linatex, we back up our technical advice with onsite support to ensure that you continue to get the most out of the Linatex Hydrocyclone G4 range.

ACTUAL LINATEX HYDROCYCLONE G4 VS STANDARD TANGENTIAL INLET HYDROCYCLONE



SHEET

The uses of Linatex Rubber are almost unlimited ranging from a complete suite of anti-abrasion linings for material handling industries, to custom fabrications and moulded components. Linatex Rubber has been shown to outlast steel, manganese steel, and even Ni-hard iron, resulting in significant cost benefits to the user.

MOULDED

A diverse range of moulded and fabricated components tailored to a growing number of industries and taking advantage of the global supply chain. Linatex provide on-site advice, installation supervision and after sales service throughout the working life of the entire product range.

PROCESS EQUIPMENT

Linatex manufacture a full range of process equipment, including pumps, valves, cyclones, screens, classifiers, engineered systems & fines recovery systems. Linatex work with customers to design equipment for their specific requirements to develop fully integrated systems.

HOSE

Linatex Hose systems are expertly built to deliver outstanding wear performance in the most demanding applications. Incorporating slurry and chemical mining hose, dredge hose and a wide variety of preformed bends, reducers and t-pieces Linatex custom made materials handling hose is second to none.

SERVICE

Access to rubber technology and engineering expertise with the back up and know-how of comprehensive design and testing services. On-site advice, installation supervision and after sales service throughout the working life of all the product ranges.

pocket for spec sheets

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