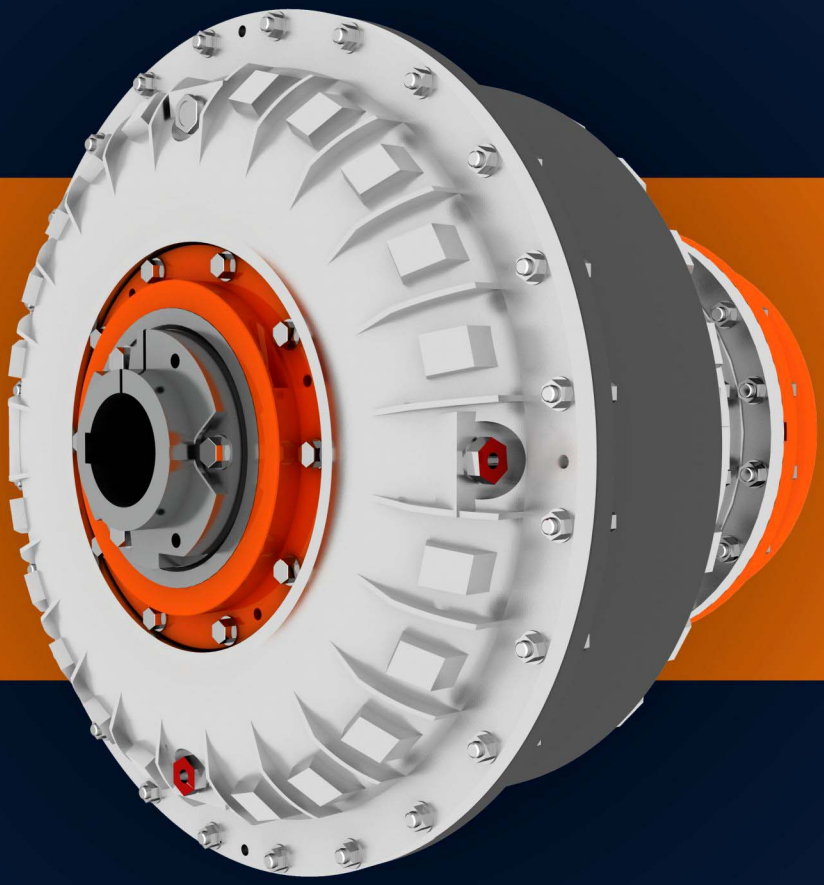


HENFLUID NG

The new generation of Hydrodynamic Couplings

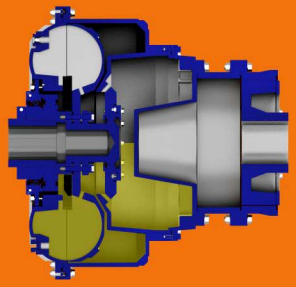
Henfel

Your performance, our focus

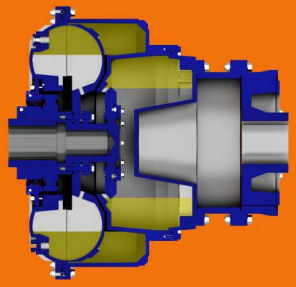
Henfel develops and manufactures Hydrodynamic Couplings since 1991 and is proud to be a part of demanding, continuous production processes which require reliability and excellent performance.
All activities carried out by its staff are oriented by the company's values, by clients' technical requirements and the continuous improvement of processes, aiming to contribute with solutions that increase performance and operational results.

Principles of operation

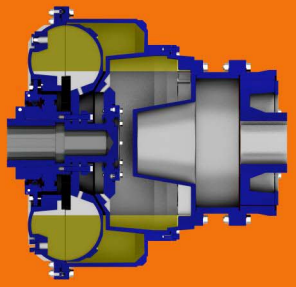
Hydrodynamic Couplings are applied connecting the prime mover (in most cases an electric motor) and the driven machine. They transmit power by means of the kinetic energy from the fluid circulating inside the operating chamber, which is between the pump wheel, connected to the input shaft, and the turbine wheel, connected to the output shaft. The operating fluid flow provides torque transmission with no mechanical contact whatsoever and free of torsional vibrations resulted from power input and output.



IDELE POSITION: The operating fluid remains static inside the coupling.



START UP: The driving machine provides the energy to accelerate the operating fluid in order to generate a round-about current. Due to the transmission of the kinetic energy by the fluid, the internal wheel (turbine wheel) is put in motion.



NORMAL OPERATON: During normal operation only the torque required by the driven machine is transmitted by the coupling, which is designed to absorb possible overloads without passing these on to the drive.

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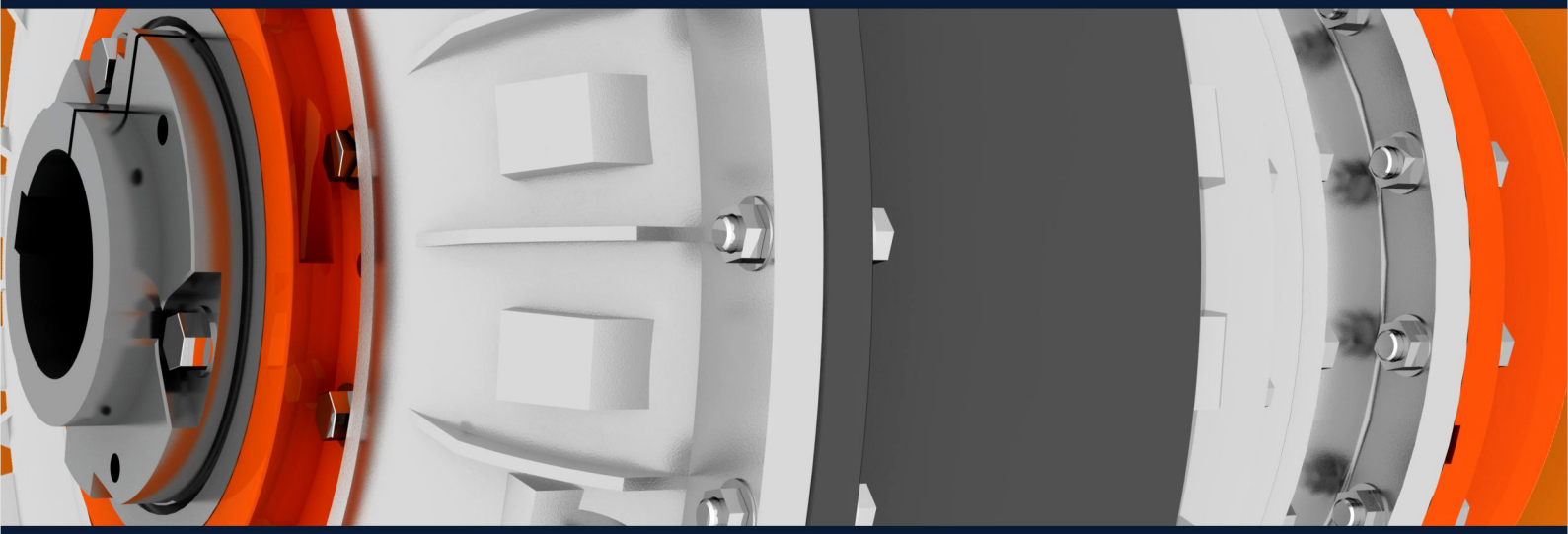


Hydrodynamic Couplings are generally applied in extremely aggressive and contaminated environments, exposed to the weather, with variations in temperature, pressure, vibration, shock etc.
Noting the work of users and maintenance technicians in assembling and disassembling of couplings, the research and development department designed a new generation of fluid couplings, the Henfluid NG. Improvements in this new project objectify the reduction of maintenance shutdown time, reducing the cost of this operation.

Innovation, practicality and efficiency which results in greater flexibility to your maintenance process.

New fixing system

- Fixing by the frontal part through a taper bushing system.
- The taper bushing is mounted on the shaft of the equipment and the coupling is fixed by it, as in a bearing assembly. This operation does not require special tools.
- The taper bushing offers the possibility of mechanical or hydraulic removal.

Optimization of the seal system.

- With the elimination of the fixing bolt, the coupling is closed on the rear part.

Models

Nowadays, there are two dominant configurations in the market.
The HLE model is used for in line assemblies, and has a connecting element type LE, composed of flange, hub and perbunan elastic elements.
The HFF model is equipped with metal disc couplings which allow radial assembling and disassembling with no need to displace other drive components.

Constructive forms

HNG

This model meets the requirements of the HLE couplings since it has the same length. Therefore, it's not necessary to adjust the base and the gap of the drive system.
It has a connecting element type LE which absorbs misalignments and vibrations.

HRNG

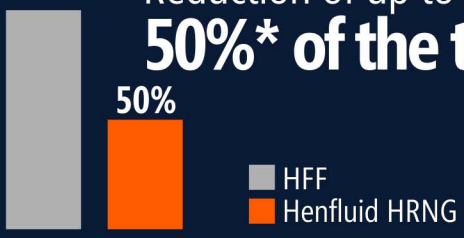
This model meets the requirements of the HFF couplings since it can be disassembled radially. However it is more compact. In case of substitution of HFF models, it can be manufactured with the same total length, eliminating the need to adjust the base and the gap of the drive system.
It has an elastic connecting element which absorbs misalignments and vibrations, which is a great advantage over the HFF system with metal disc couplings.

HRNG-X

This model meets the requirements of the HFF couplings since it can be disassembled radially. However it is more compact. In case of substitution of HFF models, it can be manufactured with the same total length, eliminating the need to adjust the base and the gap of the drive system.
It has an elastic connecting element which absorbs more misalignments and vibrations than any other coupling of the Henfluid line.

Optimization of the assembling and disassembling processes:

Reduction of up to
67%* of the time



Reduction of up to
50%* of the time

** Values subject to variation due to application characteristics.*

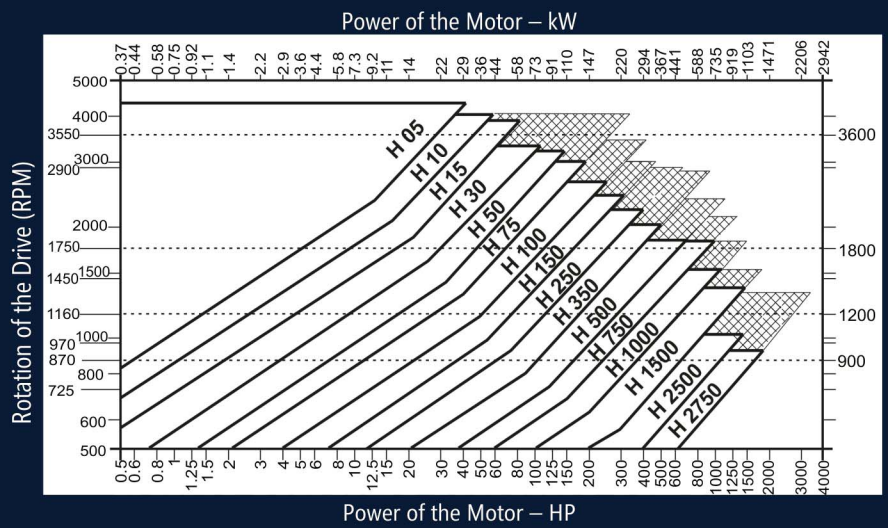
Selection Graph

This graph bellow should be used for a preliminary selection of the Henfluid hydrodynamic coupling size. To confirm the size and most suitable model for the drive, and for elaboration of technical and commercial proposals, Henfel's application engineering department should be contacted.

Operating fluid Mineral oil
Density 0.84 Kg/dm3
Fuse plug 140°C / 160°C / 180°C
Moving parts Aluminum (Silumin)

Heat treatment for moving parts required.

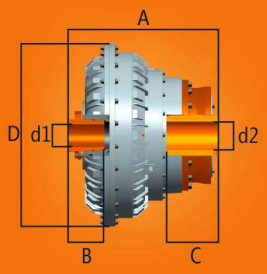
⚠ In order to dimension Water Couplings, add 10% to the drive potence.



Benefits that make all the difference

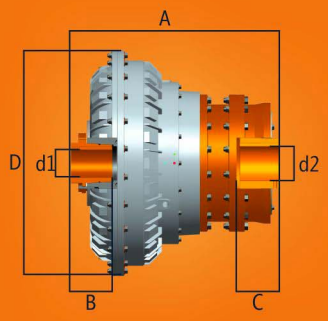
- Greater efficiency and flexibility in assembly and disassembly.
- Optimization of the seal system.
- Special tools or devices are not required
- Since they are more compact, they reduce the cost of new projects (reduction of the base size)
- They can be manufactured with the same total length of the most common models found in the market (with elastic connecting element, with metal disc couplings) requiring no adjustments on the drive base.

HNG Dimensional Table



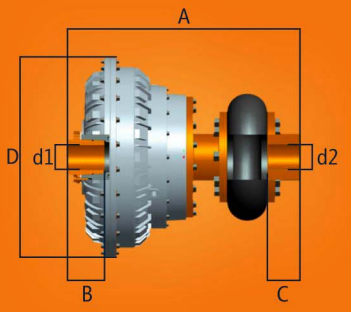
Size	Chamber	A	B	C	ØD	ØD1(max)	ØD2(max)
75	S/C	277	105	77	400	55	65
	R	307					
	RR	332					
	RRA	332					
100	S/C	307	122	99	460	65	80
	R	359					
	RR	384					
	RRA	384					
150	S/C	334	122	99	528	65	80
	R	359					
	RR	402					
	RRA	402					
250	S/C	371	140	115	574	80	80
	R	403					
	RR	488					
	RRA	488					
350	S/C	449	140	141	634	80	100
	R	449					
	RR	529					
	RRA	529					
500	S/C	514	162	182,5	719	100	120
	R	536					
	RR	631					
	RRA	631					
750	S/C	514	162	182,5	790	100	120
	R	564					
	RR	666					
	RRA	666					
1000	S/C	603	184	182,5	910	110	140
	R	603					
	RR	766					
	RRA	766					
1500	S/C	682	202	243	1040	110	160
	R	682					
	RR	830					
	RRA	830					
2500	S/C	757	215	249,5	1170	140	180
	R	757					
	RR	896					
	RRA	896					
2750	S/C	880	248	251,5	1295	140	180
	R	880					
	RR	987					
	RRA	987					

HRNG Dimensional Table



Size	Chamber	A	B	C	ØD	ØD1(max)	ØD2(max)
75	S/C	367	105	77	400	55	65
	R	397					
	RR	422					
	RRA	422					
100	S/C	412	122	96	460	65	80
	R	464					
	RR	489					
	RRA	489					
150	S/C	439	122	96	528	65	80
	R	464					
	RR	507					
	RRA	507					
250	S/C	506	140	100	574	80	80
	R	538					
	RR	623					
	RRA	623					
350	S/C	584	140	111	634	80	100
	R	584					
	RR	664					
	RRA	664					
500	S/C	669	162	144,5	719	100	120
	R	691					
	RR	786					
	RRA	786					
750	S/C	669	162	144,5	790	100	120
	R	719					
	RR	821					
	RRA	821					
1000	S/C	793	184	154,5	910	110	140
	R	793					
	RR	956					
	RRA	956					
1500	S/C	892	202	180	1040	110	160
	R	892					
	RR	1040					
	RRA	1040					
2500	S/C	972	215	199,5	1170	140	180
	R	972					
	RR	1111					
	RRA	1111					
2750	S/C	1130	248	199,5	1295	140	180
	R	1130					
	RR	1237					
	RRA	1237					

HRNG-X Dimensional Table



Size	Chamber	A	B	C	ØD	ØD1(max)	ØD2(max)
75	S/C	423	105	70	400	55	65
	R	453					
	RR	478					
	RRA	478					
100	S/C	567	122	100	460	65	80
	R	567					
	RR	592					
	RRA	592					
150	S/C	542	122	100	528	65	80
	R	567					
	RR	610					
	RRA	610					
250	S/C	575	140	100	574	80	80
	R	607					
	RR	692					
	RRA	692					
350	S/C	725	140	130	634	80	100
	R	725					
	RR	805					
	RRA	805					
500	S/C	822	162	130	719	100	120
	R	844					
	RR	939					
	RRA	939					
750	S/C	832	162	130	790	100	120
	R	882					
	RR	984					
	RRA	984					
1000	S/C	1010	184	180	910	110	140
	R	1010					
	RR	1173					
	RRA	1173					
1500	S/C	1068	202	180	1040	110	160
	R	1068					
	RR	1216					
	RRA	1216					
2500	S/C	1212	215	200	1170	140	180
	R	1212					
	RR	1351					
	RRA	1351					
2750	S/C	1335	248	200	1295	140	180
	R	1335					
	RR	1442					
	RRA	1442					

Check out the website and learn more.

www.**henfluidng.com**.br

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