



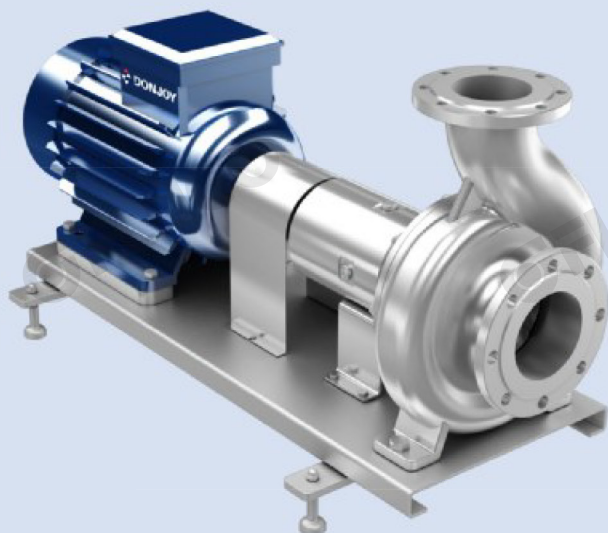
Technical Catalogue



FSNML-X Series

Centrifugal Pumps

FSNML-X series centrifugal pump



High flow, high efficiency,
low power consumption,
low noise, high purity.



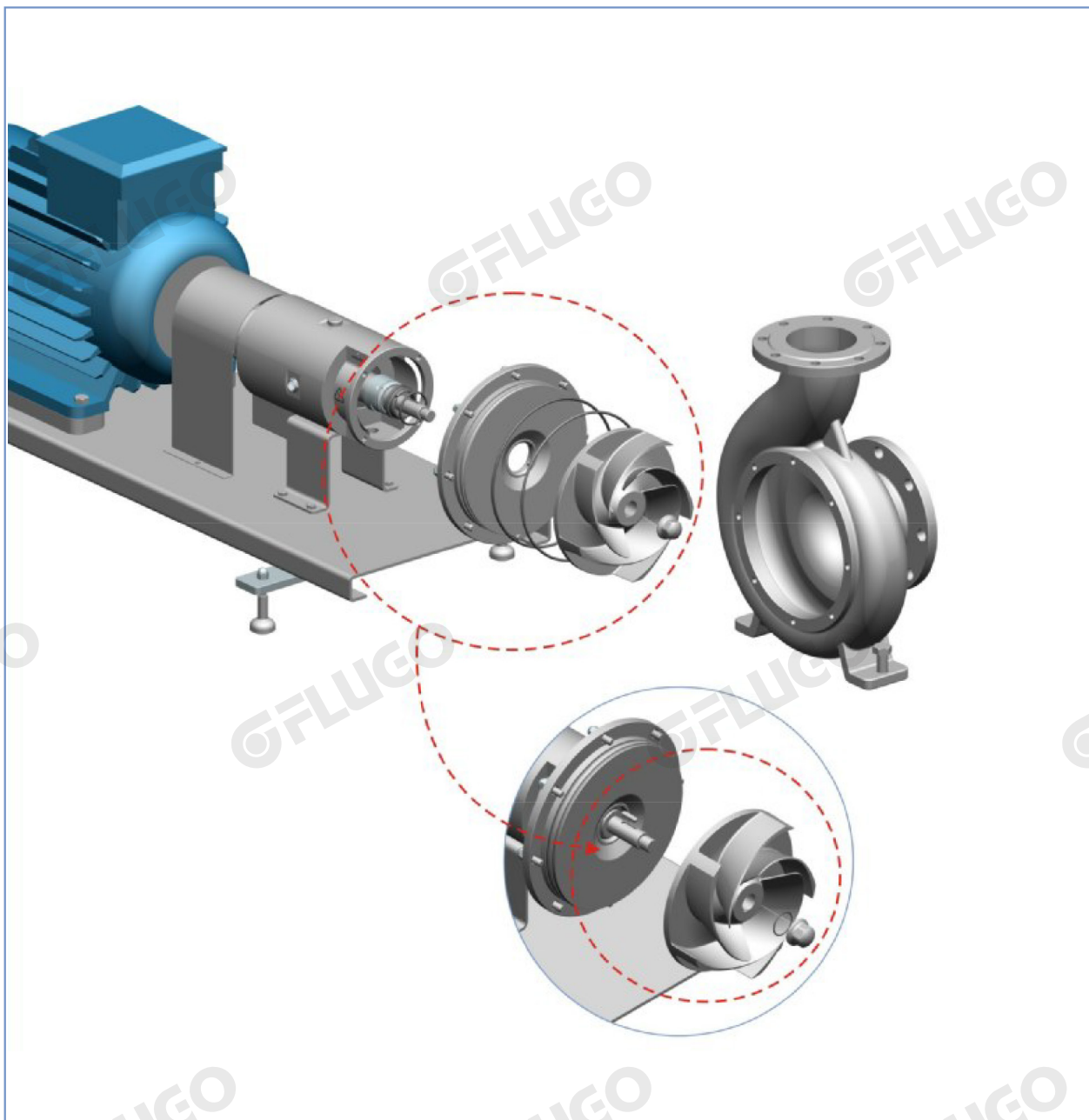
The FSNML-X series is a high-flow centrifugal pump with open impeller design. The hydraulic model is designed with CFD to improve the over-flow performance of low-viscosity particulate materials and reduce the shear damage of materials under the premise of ensuring high-efficiency hydraulic performance. Pump cover and parts contacting with medium are all made of 304/316L SS. It is mainly used to transport low-viscosity weak corrosive material with solid granules, such as Saccharified fermentation broth, wort, juice jam, food, beverage, etc. and can also be used for in industrial fields such as pharmaceutical, chemical, industrial water, drinking water treatment and so on.



Technical Specifications

Flow	100m ³ /h-800m ³ /h		
Head	40M		
Temperature	-20°C to 140°C		
Power	11kw-160kw		
Material	304/316L, 1.431/1.4404, ASME BPE 316L, 1.4435 NB2 Fe≤0.5%	Dual-phase steel 2205,	Hastelloy alloy C276
Surface treatment	≤ Ra0.8 μm, ≤ Ra0.6 μm, ≤ Ra0.4 μm		
Mechanical seal	Single mechanical seal (see configuration scheme)		
Inlet/Outlet Connection	Flanged, Aseptic flanged		
Certified	3-A-02-12(N.O.1579); MD/06/42-EC (N.O.70521616101-00); FDA 177.2600; USP CLASS-II; EG/VO1935/2004		

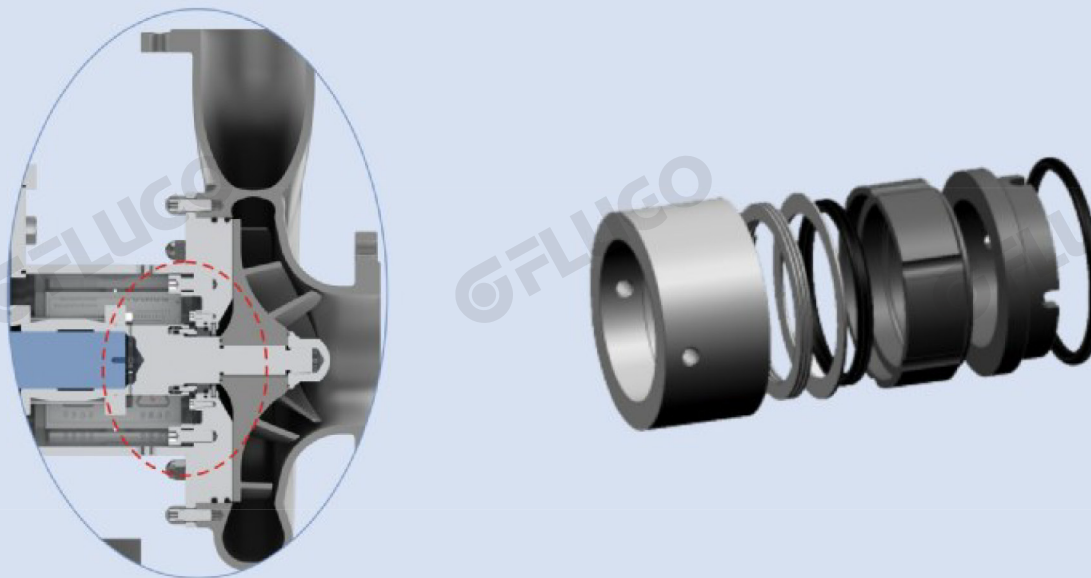
FSNML-X series centrifugal pump



Technical Advantages

- Maintenance disassembly and installation can be completed without professional staff and special tools.
- Initial use of installation debugging, even if a short reverse rotation will not be damaged.
- Impeller and shaft are connected by keyway; impeller and mechanical seal rotating ring are connected by pin; mechanical seal static ring and pump body are connected by special-shaped flange.
- compatible with single and double machine seal, only need to change machine seal.

FSNML-X series centrifugal pump mechanical seal design



Mechanical Seal Features

Flugo FSNML-X series centrifugal pump mechanical seal is researched and developed together with European Swedish famous company. The mechanical seal is designed with pressure balance and super long working life, can be disassembled and maintained easily without special tools. The sanitary purity is according to EU EHEDG, USA 3-A-02-12, FDA1772600 and so on, and has lots of configuration.

Mechanical Seal Configuration

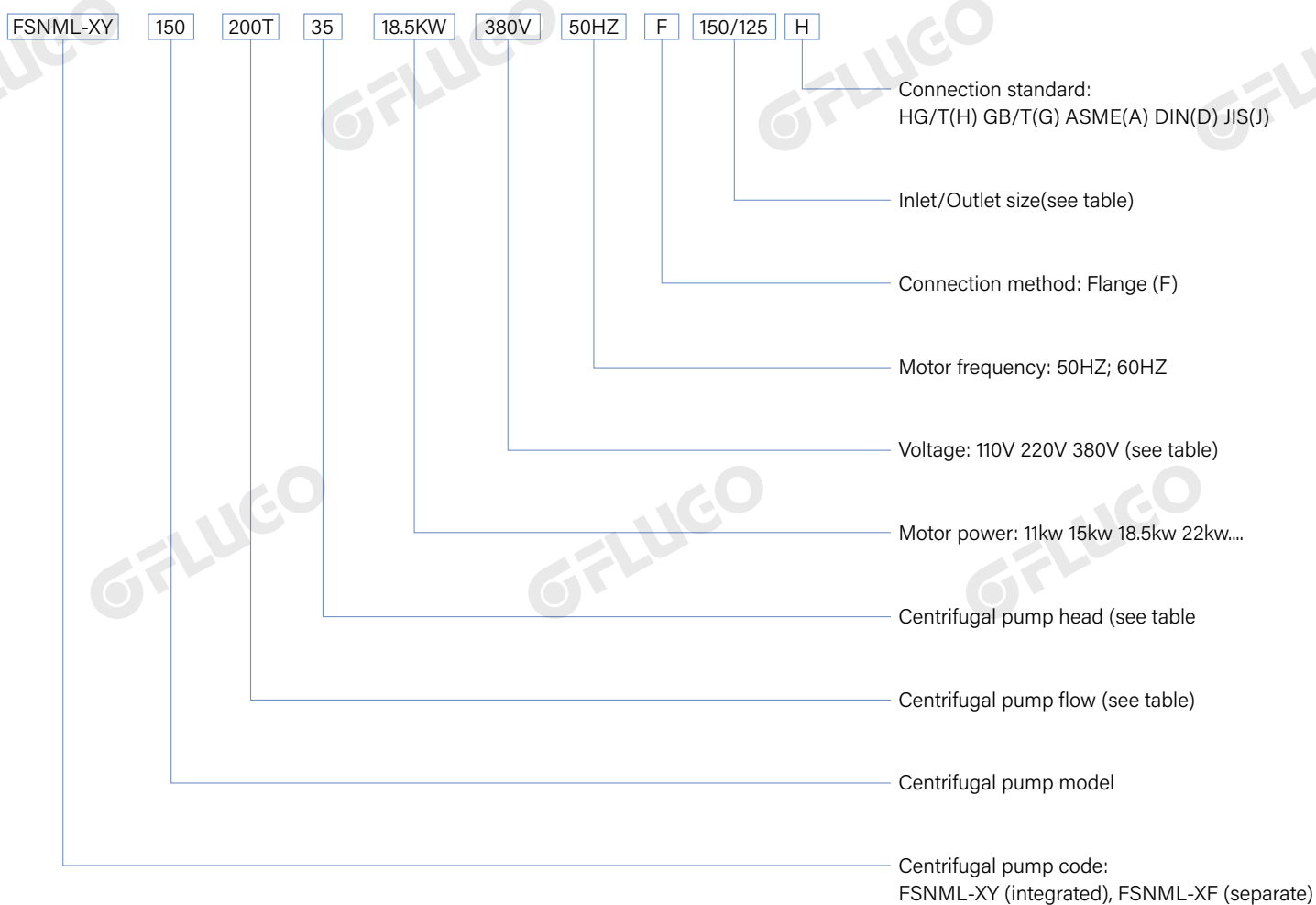
SIC/C/FKM
DIC/SIC/FKM
TC/TC/FKM

Note: The above configuration is suitable for single mechanical seal.

FSNML-X series centrifugal pump



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FSNML-X centrifugal pump selection table



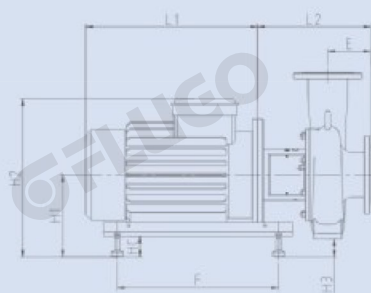
Motor Direct Connection Type

Model	Power (KW)	Flow m ³ /h	Head H(M)	Inlet	Outlet	Rotating speed	Weight (kg)
FSNML-XY 150	11	100	20	DN150	DN125	1450	220.1
	15	200	18				233.1
	18.5	300	16				243.5
	22	400	15				270.5
FSNML-XY 200	15	100	21	DN200	DN150	1450	266.5
	22	200	21				303.9
	30	300	19				352.7
	30	400	17				352.7
	30	500	15				352.7
FSNML-XY 250	18.5	200	18	DN250	DN200	980	355.9
	22	300	17.5				382.9
	30	400	17				431.7
	30	500	16				431.7
	37	600	15				462.7
	45	800	14				506.7

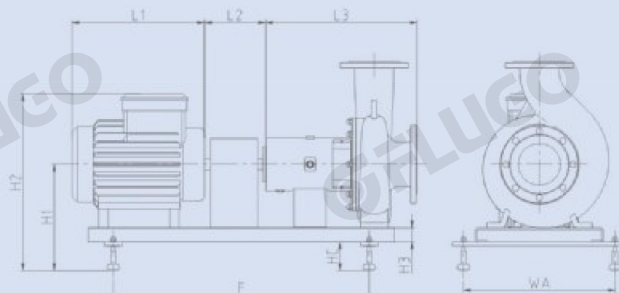
Motor Split Connection Type

Model	Power (KW)	Flow m ³ /h	Head H(M)	Inlet	Outlet	Rotating speed	Weight (kg)	Gearbox +Base (KG)
FSNML-XF 150	15	100	40	DN150	DN125	1450	306	38
	18.5	200	35				314	38
	22	300	32				341	38
	30	400	30				389	38
	22	100	45				387	39
FSNML-XF 200	30	200	42	DN200	DN150	1450	435	39
	45	300	36				510	39
	45	400	35				510	39
	45	500	30				510	39
	30	200	36				532	39
FSNML-XF 250	37	300	35	DN250	DN200	980	563	39
	45	400	34				607	39
	55	500	32				668	39
	75	600	30				880	39
	90	800	28				920	39
	30	200	36				532	39

FSNML-X series centrifugal pump data chart



FSNML-XY



FSNML-XF

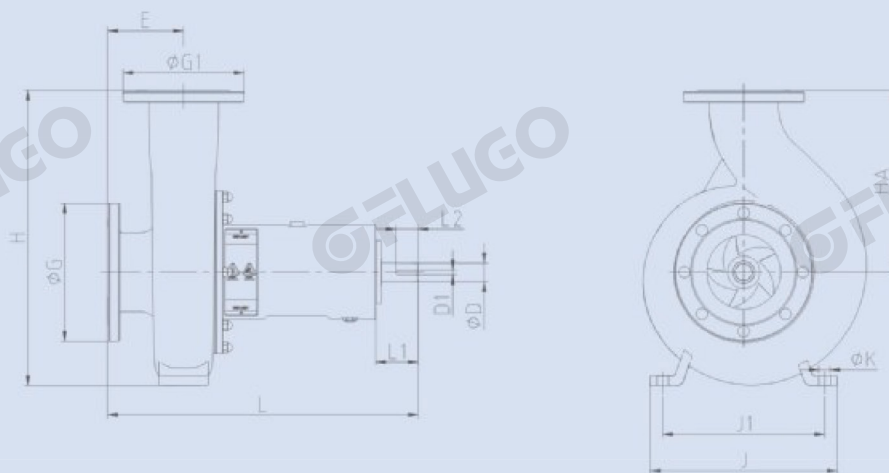
Motor Direct Connection Type

FSNML-XY	Motor power (kw)	Outline mounting size									
		H1	H2	L1	L2	E	WA	E	HA	HC	H3
FSNML-XY 150	11	231	484.2	476.5	401	450	279	154	369	51.2	1.2
	15	231	484.2	476.5	401	515	279	154	369	51.2	1.2
	18.5	237.2	491.2	573	401	515	279	154	369	37.2	7.2
	22	237.2	491.2	573	401	580	279	154	369	37.2	7.2
FSNML-XY 200	15	285.2	538.2	476.5	396	450	279	144	434	105.2	0.2
	22	287.2	541.2	573	396	515	279	144	434	87.2	2.2
	30	285	558	618	396	580	315	144	434	65	0
	30	285	558	618	396	580	315	144	434	65	0
	30	285	558	618	396	580	315	144	434	65	0
FSNML-XY 250	22	353.9	626.9	618	473	580	315	206	494	138.9	3.9
	22	353.9	626.9	618	473	580	315	206	494	138.9	3.9
	30	353.9	667.9	709	473	580	356	206	494	108.9	3.9
	30	353.9	667.9	709	473	580	356	206	494	108.9	3.9
	37	353.9	688.9	737	473	580	406	206	494	83.9	3.9
	45	353.9	688.9	842	473	580	457	206	494	83.9	3.9
	45	353.9	688.9	842	473	580	457	206	494	83.9	3.9

Motor Split Connection Type

FSNML-XF	Motor power (kw)	Outline mounting size							
		H1	H2	L1	L2	L3	F	WA	HC
FSNML-XF 150	15	382	635	476.5	222	544	920	545	102
	18.5	382	634.5	573	222	544	920	545	102
	22	382	636	573	222	544	920	545	102
	30	382	655	618	222	544	920	545	102
FSNML-XF 200	22	431.2	685.2	573	222	539	920	620	96.2
	30	431.2	704.2	618	222	539	920	620	96.2
	45	431.2	739	714	222	539	920	620	96.2
	45	431.2	739	714	222	539	920	620	96.2
	45	431.2	739	714	222	539	920	620	96.2
FSNML-XF 250	30	480	753	618	241	616	1220	820	80
	37	480	794	714	241	616	1220	820	80
	45	480	794	714	241	616	1220	820	80
	55	480	815	742	241	616	1220	820	80
	75	480	975	842	241	616	1220	820	80
	90	480	975	912	241	616	1220	820	80

Note: The relevant dimensions of the above data diagrams are not regarded as the final basis of the actual object, Fulgo reserves the right to update the data without further notice



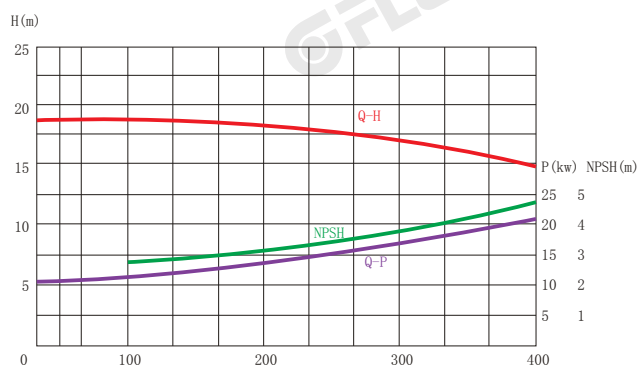
FSNML-XF	Outline mounting size											
	E	G	G1	D	D1	H	HA	L	L1	L2	J	J1
FSNML-XF-150	154	280	245	38	10	599	369	630	86	45	380	340
FSNML-XF-200	144	335	280	38	10	719	434	625	86	45	500	440
FSNML-XF-250	206	390	335	38	10	844	494	702	86	45	650	570



FSNML-X series centrifugal pump

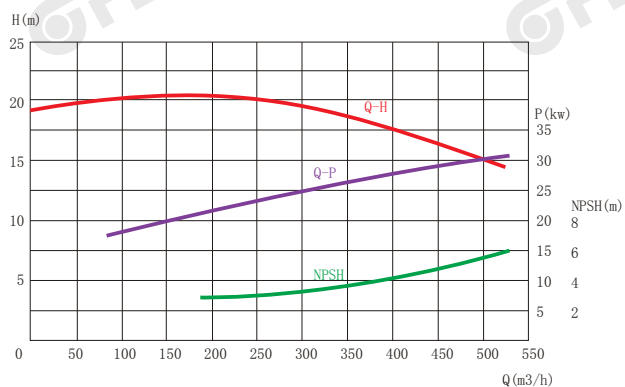


FSNML-XY - 150 (n=1450r/min)

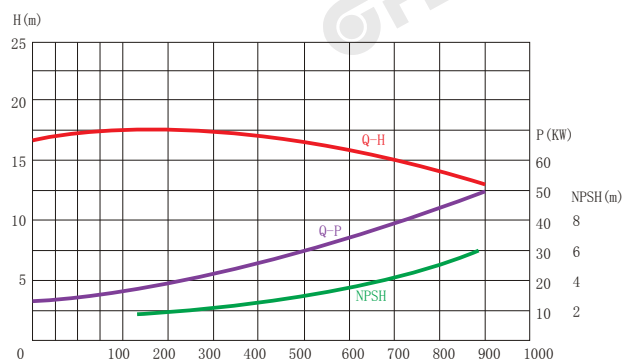


Testing condition: medium water
temperature 20°C, Q-Flow rate (m³/h), H-head (meter), P-power (KW)

FSNML-XY - 200 (n=1450r/min)



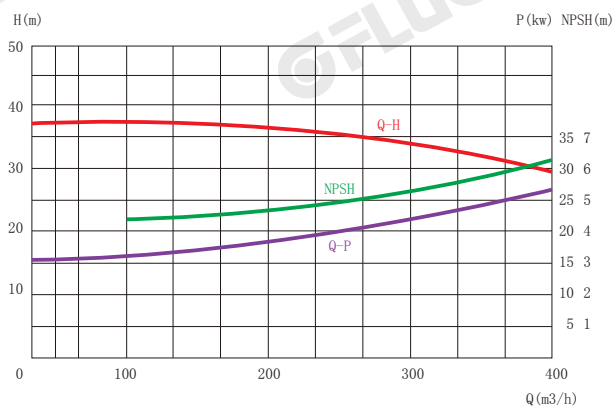
FSNML-XY - 250 (n=980r/min)



FSNML-X series centrifugal pump

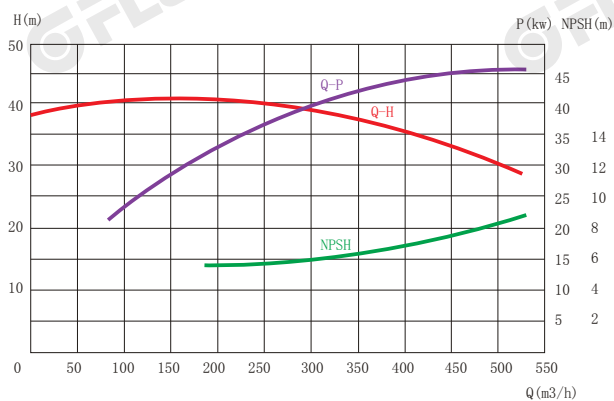


FSNML-XF - 150 (n=2900r/min)

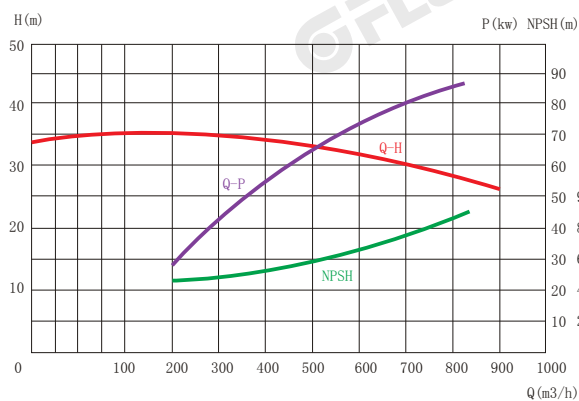


Testing condition: medium water
temperature 20°C, Q-Flow rate (m³/h), H-head (meter), P-power (KW)

FSNML-XF - 200 (n=2900r/min)



FSNML-XF - 250 (n=1450r/min)





FSNML-X Series - Centrifugal Pump

