



Technical Catalogue



FSNDL-X2 Series

Centrifugal Pump

FSNDL-X SERIES

MULTI-STAGE CENTRIFUGAL PUMP



Solution for high efficiency, Low noise,
High head, simple and economical
maintenance, High purity

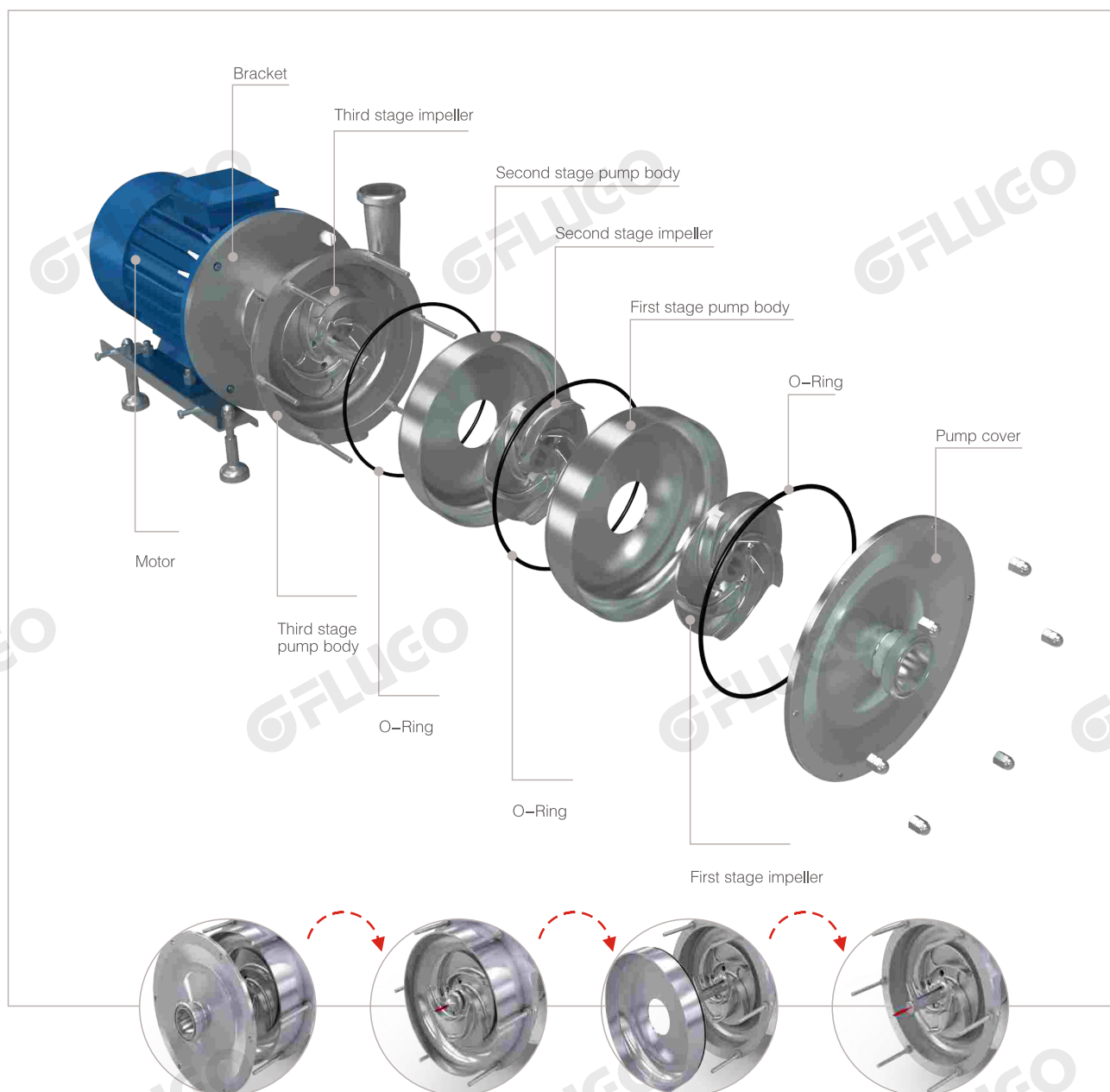


The FSNDL-X series centrifugal pump is a horizontal multi-stage open impeller centrifugal pump with high purity, high efficiency. Max head can be up to 180m (18 bar). It is soft and hygienic to transport medium. Mainly used in food and beverage, dairy, brewery carbonation process, CIP feed, pharmaceutical industry, pure water pump (WFI injection water), biotechnology production, infusion (nutrient solution, ethanol) filling station, personal care, soap, skin cream, lotion industry, purification treatment (CIP system), water technology, semiconductor production, metal surface treatment, etc.

Technical Specifications

Max flow	50m ³ /h		
Max head	210M		
Max temperature	-10℃-140℃		
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		
Machine seal	Single seal, double seal		
Machine seal configuration	See mechanical seal configuration table		
Inlet/Outlet connection	Threads, clamps, flanges, aseptic flanges		
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		

Simple maintenance, no need of special tools and professionals



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.

FSNDL-X SERIES

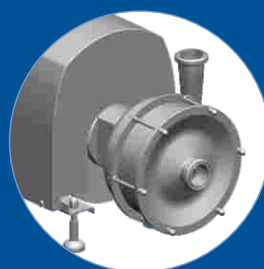
CENTRIFUGAL PUMP VARIOUS CONFIGURATIONS



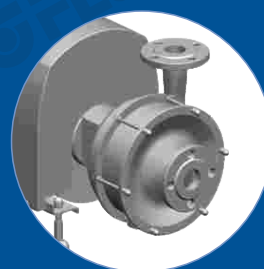
Clamped type



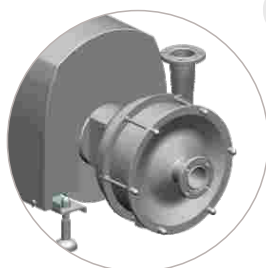
Union nut type



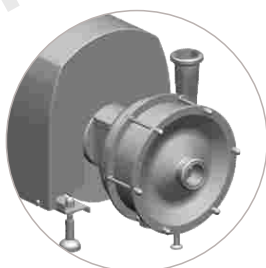
Threaded



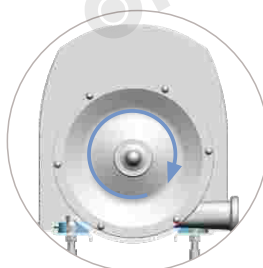
Flange connection
inlet / outlet



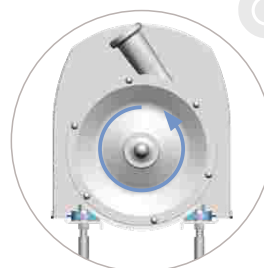
Aseptic Flange (DIN 11864)
Inlet/Outlet



Bottom straight discharge
outlet



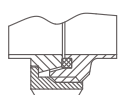
90° ... 0° inclined outlet



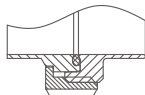
90° ... 135° inclined outlet

Pump Inlet/outlet Connection Standard

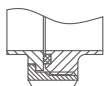
Connection: Threaded, Clamped, Flanged, Aseptic flanged,
KF etc. Standard: DIN SMS ISO IDF RJT ASME BPE 3A I-line



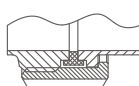
DIN11851



DIN11864-1-A



SMS



ISO/IDF



RJT



DIN11864-2



Flange



DIN11864-3



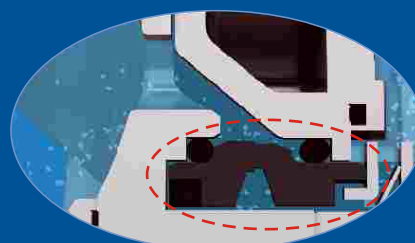
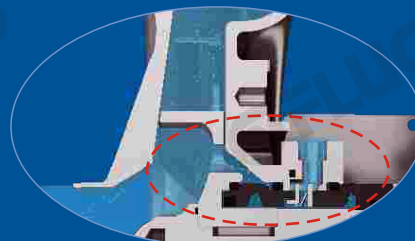
DIN32676
ISO2852



ISO2861

FSNDL-X SERIES

CENTRIFUGAL PUMP MECHANICAL SEAL DESIGN



Double mechanical seal design



Single mechanical seal design

Mechanical Seal Features

Flugo FSNDL-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.

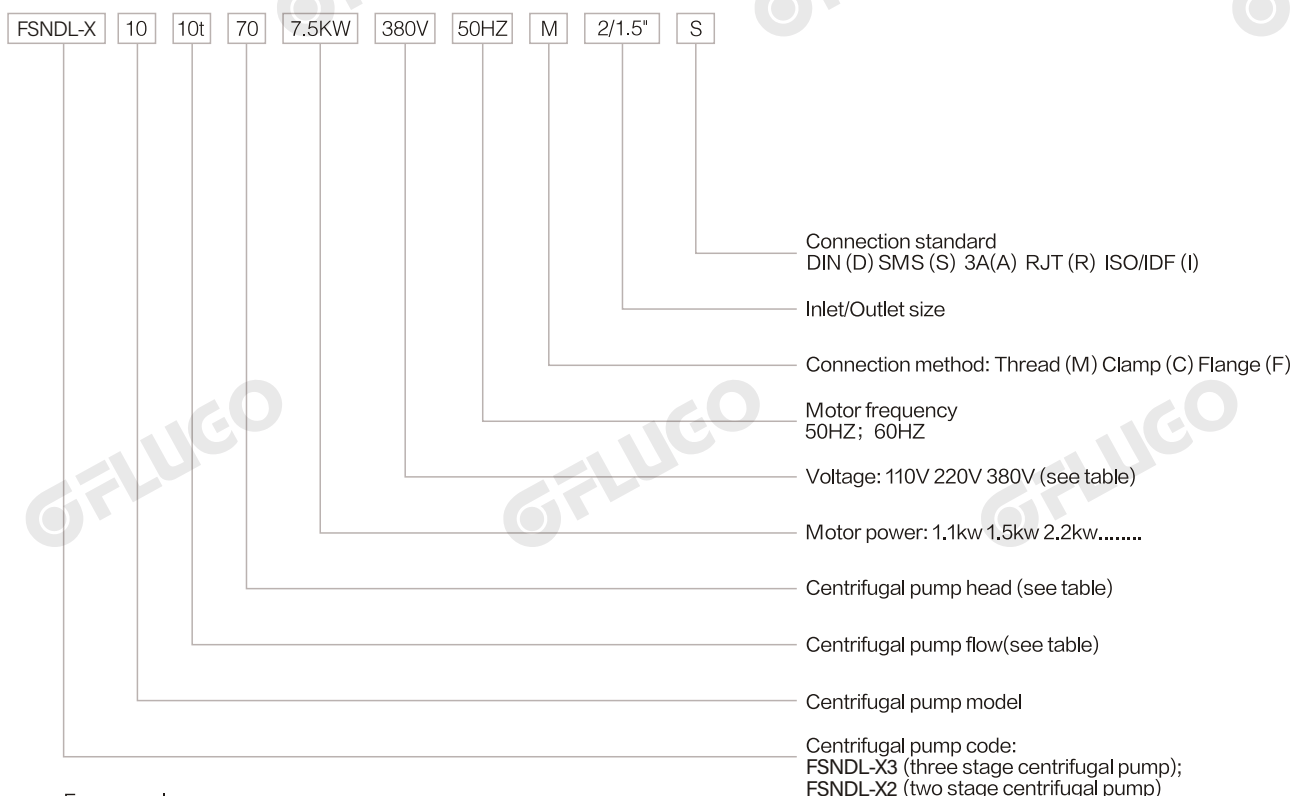
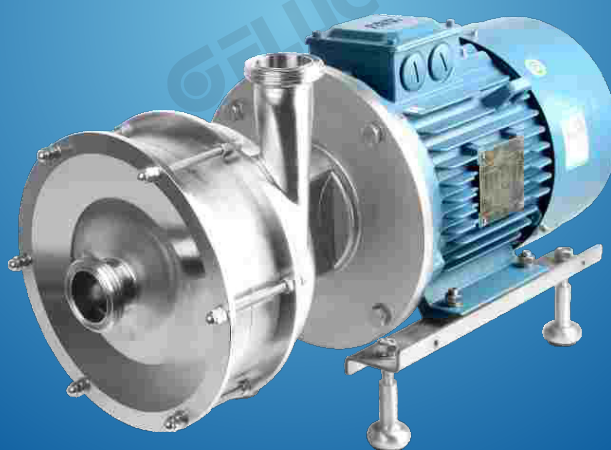
Mechanical Seal Configuration

1)SIC/C/EPDM	Standard
2)SIC/C/FKM	
3)SIC/C/HNBR	
4)SIC/SIC/EPDM	
5)SIC/SIC/FKM	Optional
6)SIC/SIC/HNBR	
7)TC/TC/EPDM	
8)TC/TC/FKM	
9)TC/TC/HNBR	

Note: Above configurations is suitable for single and double mechanical seal

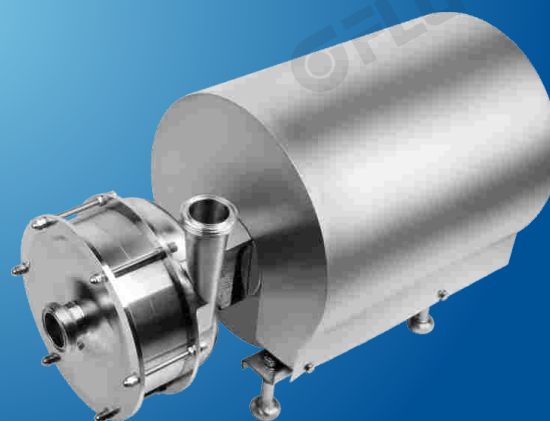
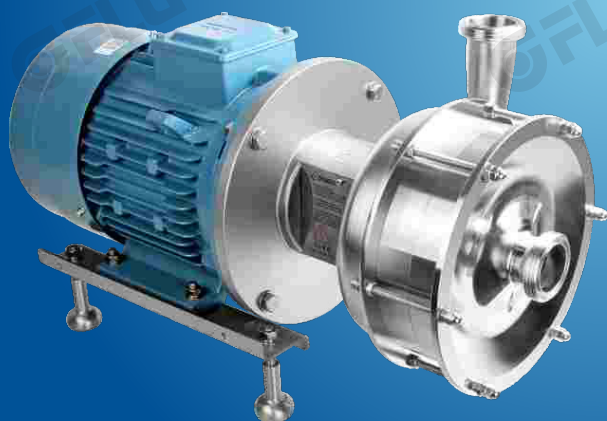
FSNDL-X SERIES

centrifugal pump model instruction



FSNDL-X CENTRIFUGAL PUMP

PERFORMANCE SELECTION TABLE

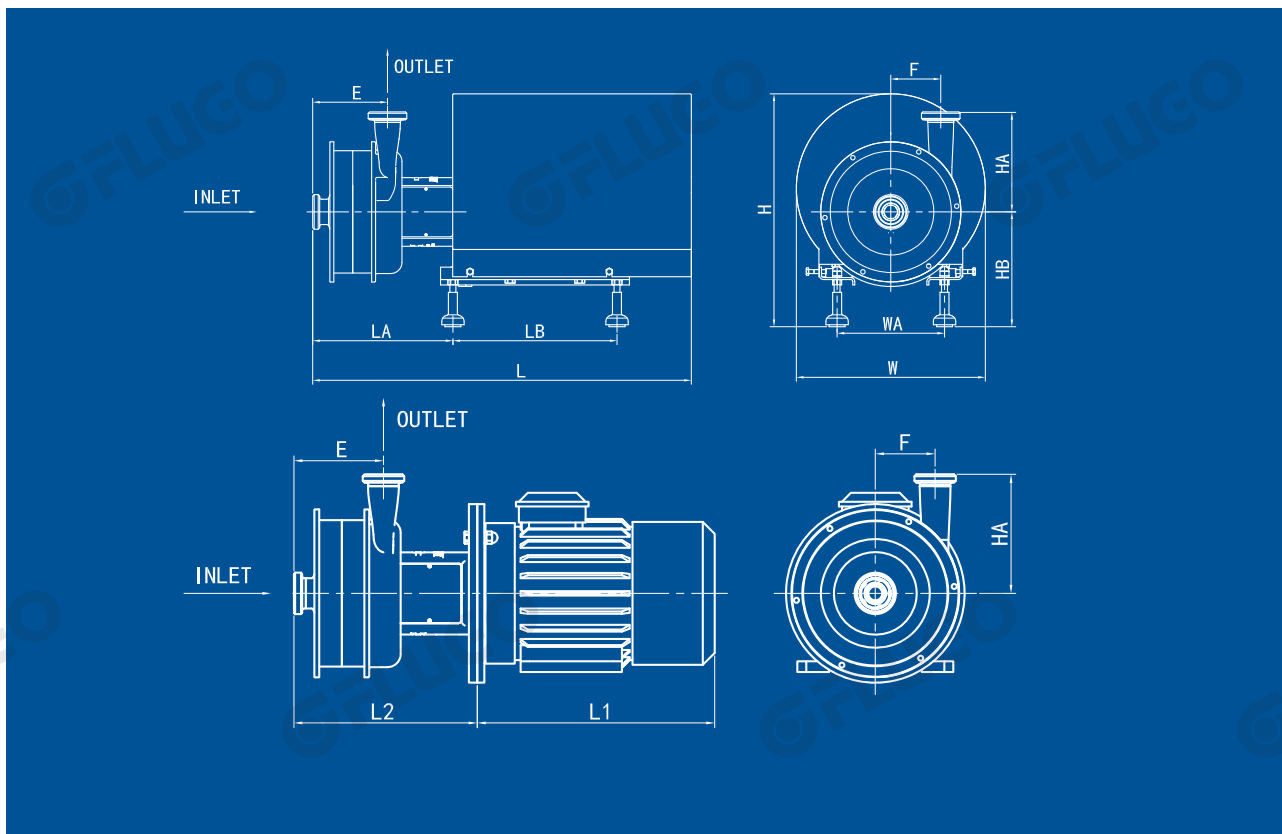


Model	Power (KW)	Flow rate (m³)	Discharge (M)	Inlet&outlet	Weight (KG)
FSNDL-X2-05	1.1	2	35	1.5"/0.75"	27
	1.5	4	32		33
	1.5	5	30		33
FSNDL-X2-10	2.2	5	40	1.5"/1.5"	50
	3	8	40		57
	3	10	40		57
	4	15	36		64
FSNDL-X2-15	3	5	56	2"/1.5"	63
	4	10	50		69
	5.5	15	44		89
FSNDL-X2-20	7.5	10	68	2"/2"	95
	7.5	15	66		95
	11	20	63		139
	11	25	56		139
FSNDL-X2-30	11	10	114	2.5"/1.5" (3"/2")	116
	11	15	110		158
	15	20	100		173
	15	25	90		173
	15	30	76		173
FSNDL-X2-35	22	20	124	3"/1.5" (3"/2")	224
	22	25	120		224
	22	30	114		224
	30	35	110		257
	30	40	100		257
	30	45	93		257
	30	50	86		257

Model	Power (KW)	Flow rate (m³)	Discharge (M)	Inlet&outlet	Weight (KG)
FSNDL-X3-05	1.5	2	50	1.5"/0.75"	34
	2.2	4	42		34
	2.2	5	38		37
FSNDL-X3-10	3	5	60	1.5"/1.5"	61
	4				67
	4	8	60		67
	5.5	10	60		87
	5.5	15	54		87
FSNDL-X3-15	5.5	5	84	2"/1.5"	93
	5.5	10	75		93
	7.5	15	65		104
	11	10	103		143
FSNDL-X3-20	11	15	100	2"/2"	143
	15	20	94		151
	15	25	85		151
	15	10	171		183
FSNDL-X3-30	18.5	15	165	2.5"/1.5" (3"/2")	213
	18.5	20	150		213
	22	25	135		226
	22	30	114		226
	37	20	185		316
	37	25	180		316
FSNDL-X3-35	37	30	171	3"/1.5" (3"/2")	316
	37	35	165		316
	45	40	150		364
	45	45	140		364
	45	50	130		364

FSNDL-X -3 SERIES

CENTRIFUGAL PUMP DATA CHART

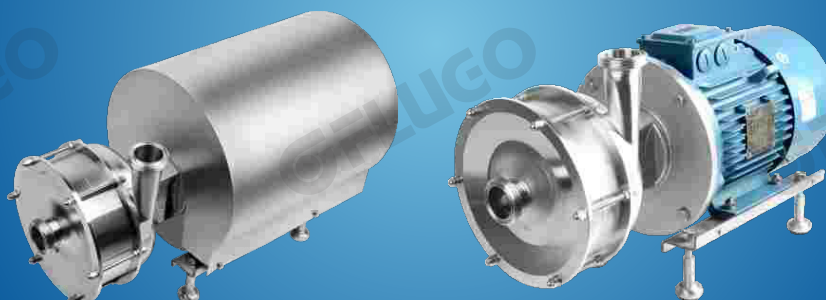


Series (FSNDL-X-3)	Motor power (kw)	Pump dimension		Assembly Dimension							Inlet and outlet connection way														
		Inlet	Outlet	F	H	HB	LB	W	WA	L1	SMS Thread					INCH Clamped					DIN Thread				
											E	LA	L	HA	L2	E	LA	L	HA	L2	E	LA	L	HA	L2
FSNDL-X-3-05	1.5-22KW	1.5"/0.75"		52.5	337	189	240	250	140	235	113	210	518	109	234	106	202	511	102	226	113	210	518	109	234
	3KW	1.5"/1.5"		76.5	409	218	245	320	160	316	153	243	668	150	285	145	236	661	143	278	153	243	668	150	285
FSNDL-X-3-10	4KW	1.5"/1.5"		76.5	414	211	300	340	190	351	153	250	669	150	285	145	243	662	143	278	153	250	669	150	285
	5.5KW	1.5"/1.5"		76.5	468	231	330	380	216	399	153	284	764	150	285	145	277	757	143	278	153	284	764	150	285
FSNDL-X-3-15	5.5-7.5KW	2"/1.5"		98	468	231	330	380	216	399	141	270	750	180	296	133	263	743	173	289	141	270	750	180	296
FSNDL-X-3-20	11-15KW	2"/2"		101	551	260	450	470	254	477	151	324	900	200	367	143	316	892	193	359	152	325	901	201	368
	15KW	3"/1.5"		128	551	260	450	470	254	477	164	315	890	210	359	152	303	878	203	346	164	315	890	210	359
FSNDL-X-3-30	18.5KW	3"/1.5"		128	551	260	450	470	254	477	164	315	890	210	359	152	303	878	203	346	164	315	890	210	359
	22KW	3"/1.5"		128	585	261	510	510	279	573	164	310	985	210	359	152	303	973	203	346	164	315	985	210	359
FSNDL-X-3-35	37KW	3"/2"		141	689	300	580	610	318	711	195	380	1170	235	397	182	367	1157	228	385	195	380	1170	236	397
	45KW	3"/2"		141	722	325	700	660	356	740	195	332	1200	235	397	182	319	1187	228	385	195	332	1200	236	397

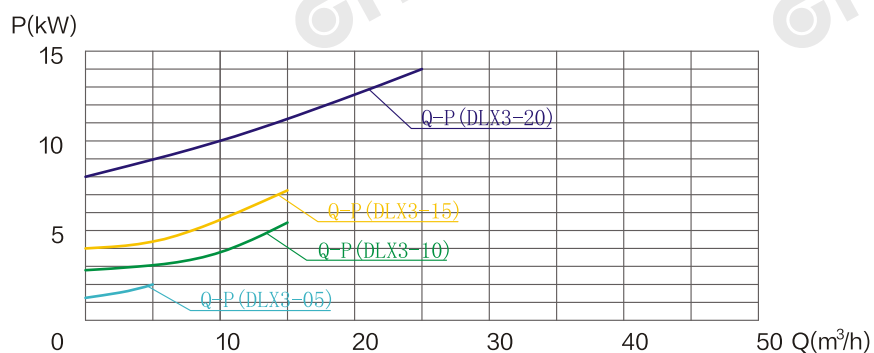
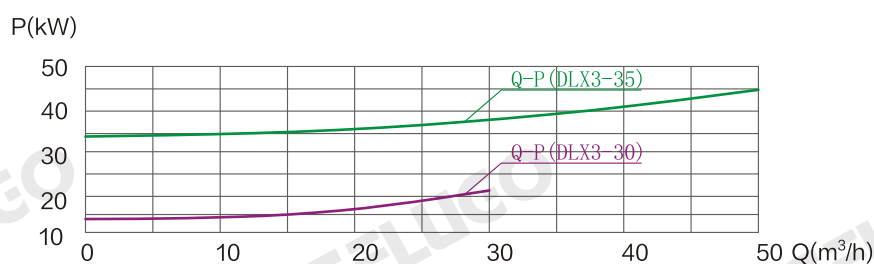
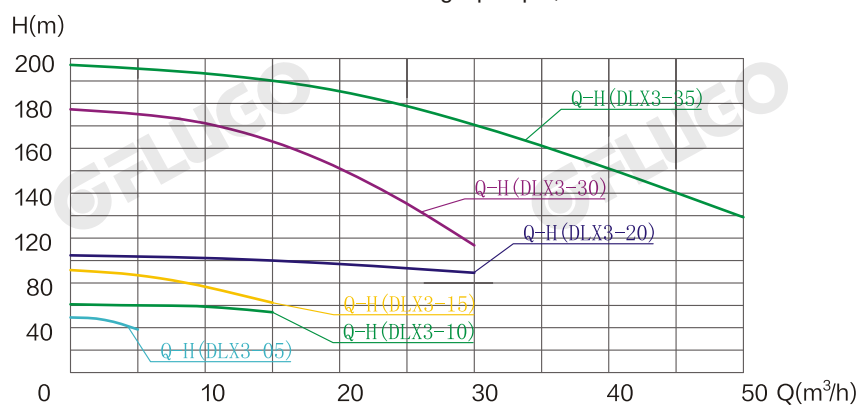
Note: The relevant dimensions of the above data diagrams are not regarded as the final basis of the actual object.
Flugo reserves the right to update the data without further notice.

FSNDL-X SERIES

CENTRIFUGAL PUMP GRAPH



FSNDL-X-3 series centrifugal pump Q-H curve





FSNDL-X Series - Centrifugal Pump

Authorized Distributor