

PX2-100.0-4 VORTEX 1 Chopper

replace FS-3102-181, impeller #491

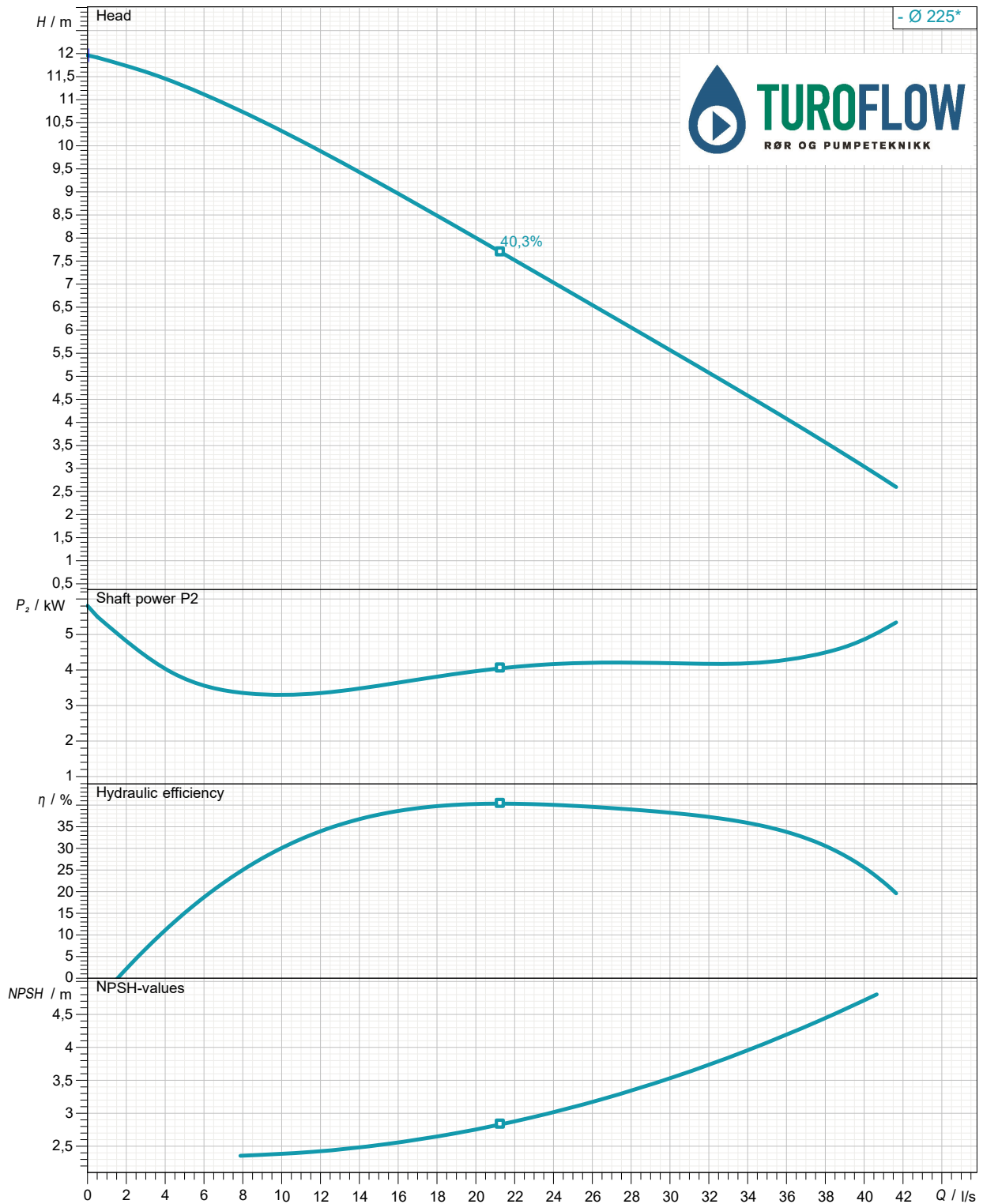
01/03/2019

Page: 3

Pump : PX2-100.0-4 VORTEX 1 Chopper	1	Single head pump	Duty point
Impeller : VX2-100 Vortex impeller	D= 225 mm	Flow capacity :	
Free throughlet : 80 mm	Nominal speed : 1460 rpm	Delivery Head :	
		Pump efficiency :	
Motor : M2.1B-5,5 IE2	3~ 50 Hz 1460 rpm	Rated power :	(P2)
Rated power(P2) / voltage / current :	5,5 kW 230 V 19,7 A	Power input :	(P1)
Motor efficiency 4/4 :	87,7 %	Power factor 4/4 (cos phi) :	0,805
Motor cable leads :	7x2,5mm ² (DOL) / 12x1,5mm ² (SD)		

data referred to : Water; 20°C; 998,3kg/m³; 1,001mm²/s

Tolerances acc. ISO 9906 Grade 2B



Curves are approximate, pump is guaranteed for one set of conditions (capacity, head, efficiency)

Submersible, centrifugal, non-clogging Chopper sewage pump PX2-100.0-4 VORTEX 1 with Cutting system capable of handling raw,unscreened sewage.

The pumps manufactured within European Union with the latest manufacturing and environmental standards and practical standard features as :

- Vortex impeller made in ductile iron GGG40 are of non clogging design
- Channel and vortex impellers can be accommodated in the same volute. This advance together with possibility to be trimmed allow to meet changing duties.
- Wear rings with 'reducer' clearances system allow to be re-positioned axially in order to reduce the clearances between the channel impeller and volute.
- Fast lock connection system latch bolts made in stainless steel for easy removal of the motor together with impeller from the volute.

Submersible motor type M2.1C- 7,5 can be capable of operating continuously in submerged for wet installation. Cooling jacket with Internal cooling system is available as option.

-Electrical motor PXFLOW -SIEMENS standard IE1 or higher efficiency class (IE2 or IE3 as option) have Class F insulation (rated for 155 degrees Celsius) as standard (Class H as option)

-Separate sealed terminal connection area

-Rotor shaft oversized made in stainless steel and oversized ball bearings ensuring smooth and vibration free running with extended life time as result.

-Shaft sealing system consist of double mechanical seals built into a replaceable cartridge facilitate quick changes even on-site without special tools.

Motor protections :

- Three thermal overload switches, one per phase, internally wound to combat high temperature loads.
- Built-in moisture sensors to terminal connection area (upper motor side), inside the motor (lower side) and in oil chamber

Materials

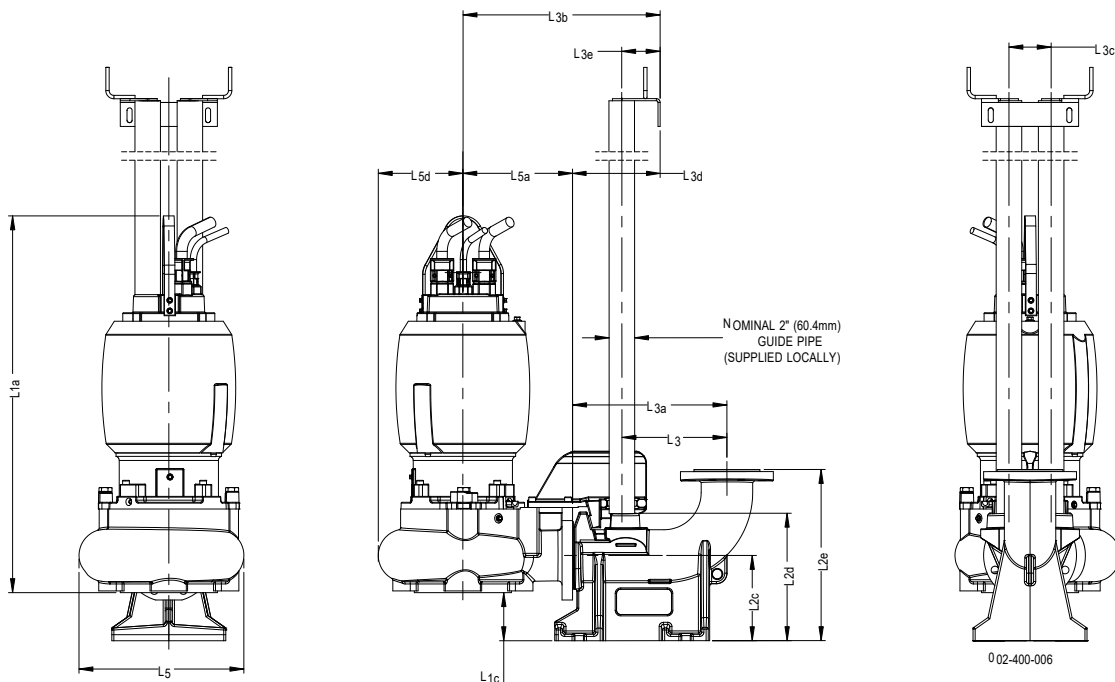
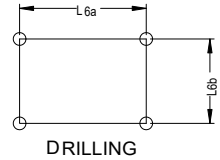
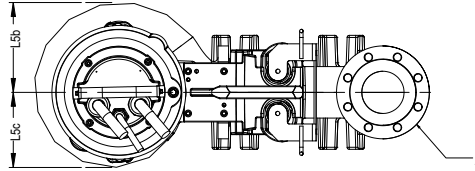
PX2-100.0-4 VORTEX 1 Chopper(Vortex impeller)+7,5 kW

- Motor housing, volute :cast iron GG -25
- Impeller : ductile iron GGG40
- Shaft, cartridge sleeve :stainless steel 431
- Shaft seal:Media side sic/sic
Cooling side sic/sic
- Bearings:upper:single row deep groove ball bearing
lower: double angular contact ball bearing

Wet pit installation accesories set (on request)

- Discharge connection bracket (DCB):cast iron GG -25 (standard) or stainless steel (option)
- adapter : ductile iron GGG40 (standard) or stainless steel (option)
- Upper guide bracket (UGB):galvanize steel (standard) or stainless steel (option)

PX2-100.0-4 VORTEX 1 Chopper With motor M2.1C-7,5



Dimensions		Dimensions	
Name	Value	Name	Value
L1a	893	L5a	260
L1c	114	L5b	213
L2c	206	L5c	178
L2d	302	L5d	200
L2e	405,5	L6a	253
L3	250	L6b	140
L3a (DN100)	364		
L3b	376		
L3c	100		
L3d	205		
L3e	91		
L5	391		

For Discharge connection bracket :
 Outlet flange - Standard : DN100 / PN10 - Option : 4" ANSI class 125

For pump :
 Outlet flange - Standard : DN100 / PN16- Option : 4" ANSI class 125

Suction flange - Standard : DN100 / PN16- Option : 4" ANSI class 125

Weight of Pump with cooling jacket = 174 kg
 (without cooling jacket : - 27 kg)

Weight of Adapter = 10 kg
 Weight of Discharge connection bracket (DCB) 100 = 47 kg

replace FS-3102-181, impeller #491

01/03/2019

Page: 10

Motor : M2.1C-7,5 3~ 50 Hz 4 1449 rpm

Motor manufacturer : **PXFLOW - SIEMENS**

Rated power(P2) / voltage / current : 7,5 kW 230 V 26,8 A Degree of protection [IP] : IP 68

Starting current : 177 A (DOL) / 59 A (Y-D) Starts per hour : 15

Motor cable leads : 4x4mm² + 4x1,5mm² (DOL) / 12x2,5mm² (SD)

data referred to : 230 V

Tolerances acc. VDE 0530

Symbol	No loac	25 %	50 %	75 %	100 %	125 %
P ₂ / kW		1,875	3,75	5,625	7,5	9,375
P ₁ / kW		2,402	4,348	6,473	8,721	11,03
η / %		78,06	86,25	86,9	86	85,01
n / 1/min		1487	1476	1463	1449	1432
cos φ		0,428	0,669	0,769	0,819	0,847
I / A		14,09	16,31	21,13	26,73	32,69
s / %		0,8667	1,601	2,467	3,401	4,528
M / Nm		12,04	24,26	36,72	49,43	62,51

