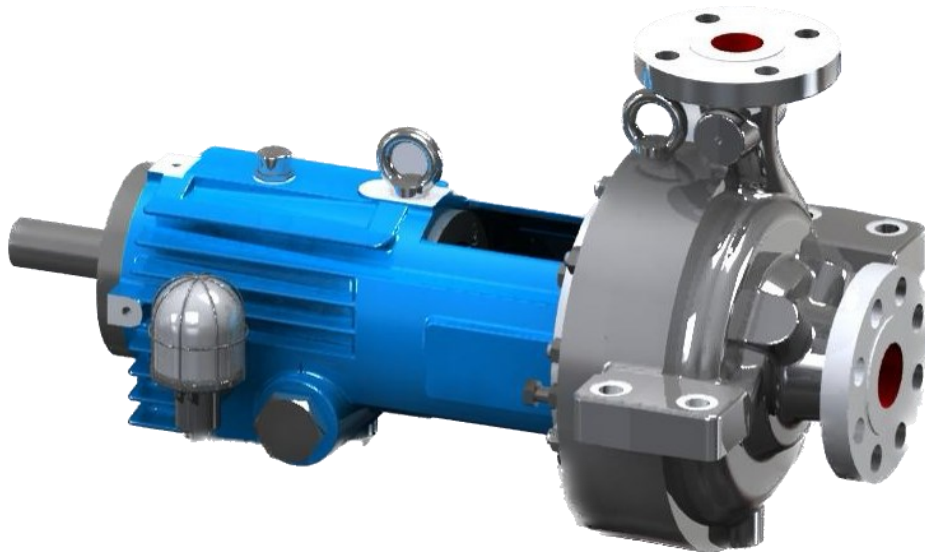


BROCHURE OGH SERIES

BIRAGHI POMPE 1906



- ITALIAN QUALITY
- SINCE 1906

API 610 Horizontal Process Pumps



OGH SERIES—BIRAGHI POMPE 1906

OGH PROCESS PUMP

General Description

The OGH process pumps are horizontally mounted, radial split case, single stage, single suction, heavy-duty centrifugal process pumps. They are designed for continuous duty, pumping various fluids, with a combination of mechanical and installation features for applications in petroleum, petrochemical, and industrial products service. Some of these features are described in the paragraphs that follow. The OGH pump is designed for full compliance with the API 610, 12th edition, and API 682.

Additional construction features of the OGH are as follows

- (a) Seal chamber designed to API 610 and API 682 standards.
- (b) The impeller is keyed to the shaft and locked with cap nut.
- (c) Bearing bracket is furnished with extra large cooling fins for air cooling with optional water or fan cooling. The fan cooling range is 120 C° to 260 C°. Water cooling range is 260 C°. F and above. Oil mist or purge mist lube is optional.

AUXILIARY CONNECTIONS

Pumps are self-venting, and are stocked without vent taps. Vent taps can be drilled and tapped if required and specified. Vents will be 1/2" NPT on 3" and smaller discharge sizes, and 3/4" NPT on 4" and larger discharge sizes. Standard stock cases are drilled and tapped for drain holes and seal recirculation lines, and shipped with a plug of the same material in the case. 1" through 3" discharge sizes have 1/2"NPT; 4" and larger discharge sizes have 3/4" NPT drains.

FEATURES DESIGN—PUMP CASE

The pump case has centerline support feet integrally cast with the case for equal thermal expansion or contraction. This minimizes alignment problems caused by case movement due to temperature differences between operating and ambient conditions.

Sizes 1 " through 3" discharge nozzles are single volute, 4" and above discharge nozzles are double volute.

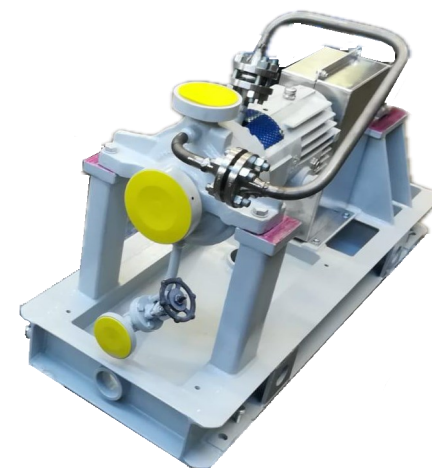
Standard construction features of the OGH pump case are as follows:

- ⇒ Steel case with a 63 Bar hydrotest.
- ⇒ Rabbet fit for cover.
- ⇒ Studs are utilized for case-to-cover fasteners.
- ⇒ Full back face or spot faced flange holes.
- ⇒ Bosses that may be drilled for vent or gage connections (suction and discharge), when required.
- ⇒ Removable case and cover and wear rings.
- ⇒ Standard flanges are 300# RF, finish per ANSI B16.5.
- ⇒ Back pullout design allows pump internals and the bearing housing to be served without disturbing the driver or piping.

PUMP COVER

Standard features of the OGH pump cover are as follows:

- (a) Standard metallurgy is low carbon steel.
- (b) Stud fastener holes back faced to assure uniform contact.
- (c) Jack screws are provided for easy removal.
- (d) The seal chamber is larger than API



OGH SERIES—BIRAGHI POMPE 1906

OIL MIST LUBRICATION

BEARING BRACKET

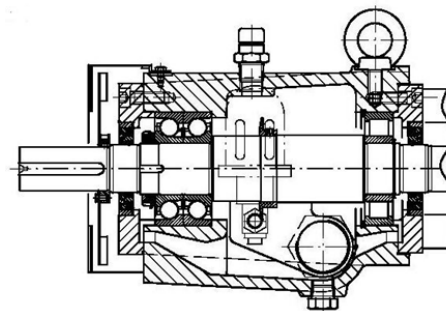
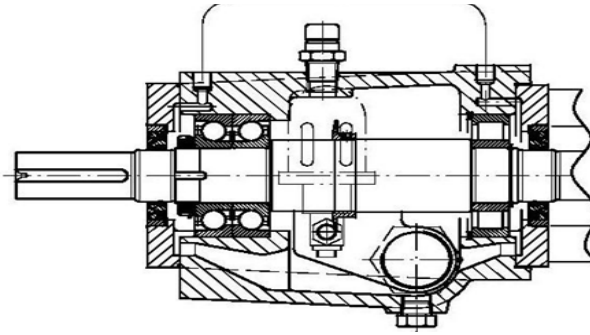
The OGH bracket is designed for short overhang and has tapered bearing cylinders for maximum access to stuffingbox. The over-size oil reservoir is furnished with a Trico 4 oz. Constant level oiler as standard.

Standard materials of construction for the extra heavy OGH bearing bracket is steel with bronze deflectors that extend under the bearing covers as a safety feature in the event of a bearing failure. The inboard deflector is finned to provide fan action in the stuffingbox area to help dissipate heat. A large sight glass is furnished for easy observation of the oil level.

A threaded filtered vent is provided. The thrust bearing cover utilizes four bolts for a secure stationary fit. Guide pins to locate oil rings when unit is installed or moved, are also a standard feature of the OGH process pump.

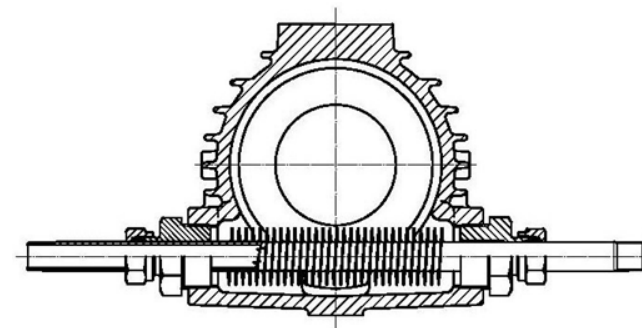
SHAFT AND SHAFT SLEEVES

The shaft is of large diameter, and short length design to reduce shaft deflection. The stepped shaft positively positions impeller and sleeve and permits free expansion at high temperatures.



FAN COOLING

WATER COOLING



Gasketed shaft sleeve positively seals and eliminates leakage under the sleeve. The sleeve extends through the gland.

SEAL GLAND

The gland utilizes four studs to insure a secure fit when mechanical seals are utilized. All studs used in the sealing gland and bearing bracket covers are ASTM-A193 GR-B-7.

COUPLING

A spacer coupling is provided for accessibility of service and maintenance. Almost any make coupling is available. The spacer permits complete removal of the rotating element without disturbing the piping or driver.

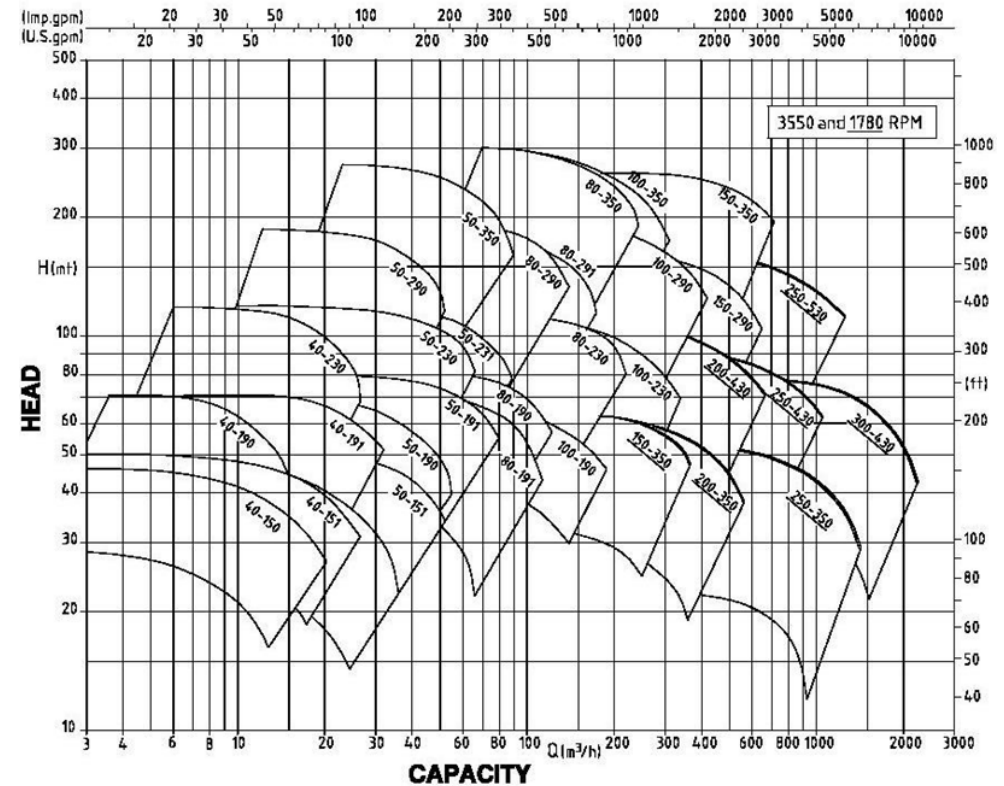
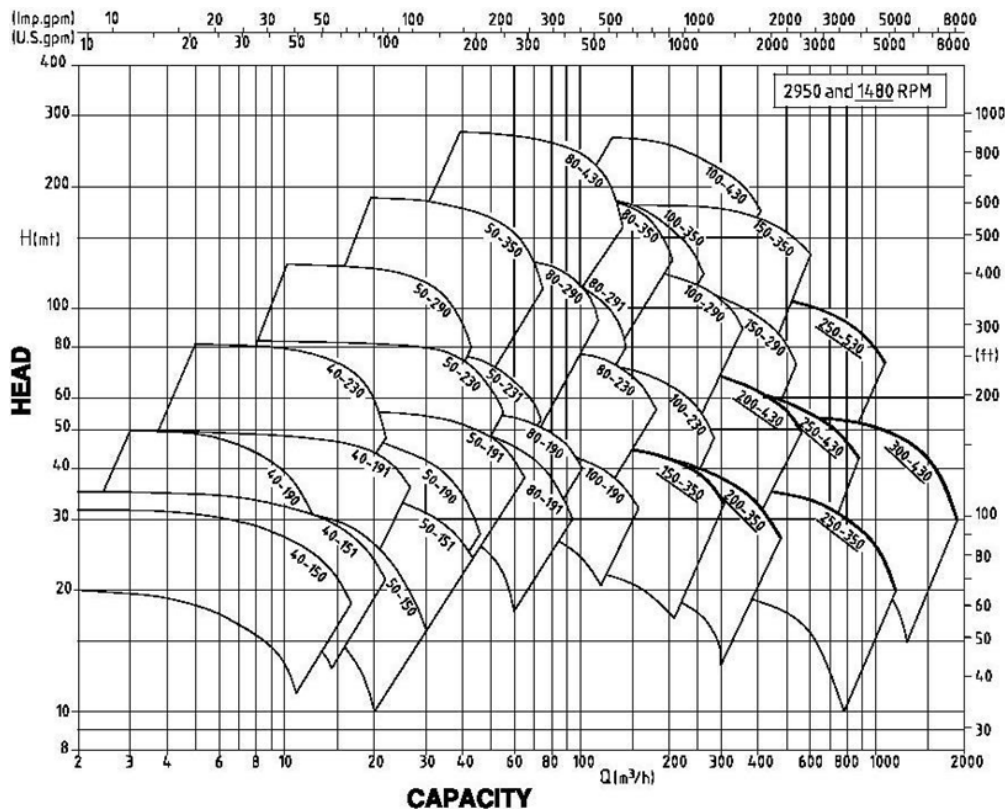
ROTATION

Rotation is counterclockwise when viewed from the coupling end.

OGH SERIES—BIRAGHI POMPE 1906

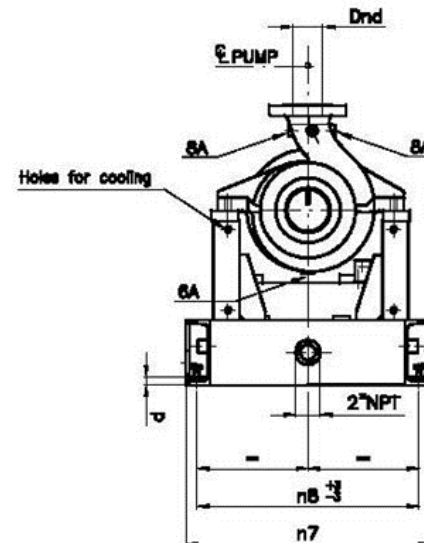
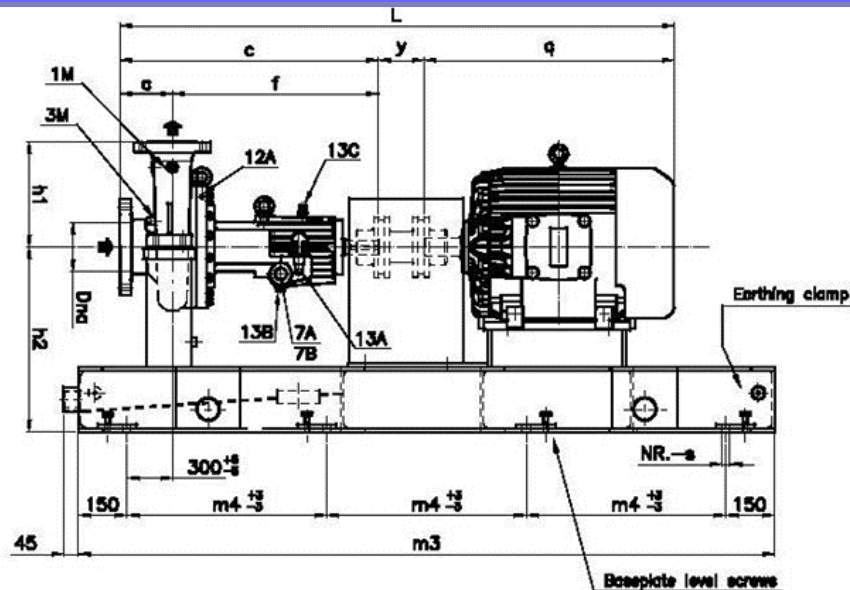
IMPELLER AND WEAR RINGS

The impeller is closed, single suction statically and dynamically balanced. Renewable front and back impeller wear rings are standard. The impeller is keyed hydraulically, to the pump shaft and positively locked in place by a capnut. Upon customer request, the impeller can also



Capacity	to 2000 m ³ /hr
Head	to 280 m
Max working pressure	to 63 bar
Temperature	to 450 C°

OGH SERIES—BIRAGHI POMPE 1906



Suction and discharge flanges
ASA 150 or 300 ANSI16.5

Notes: Total weight =
Pump weight + Motor weight + Basepl. weight

Thread according to ASA B2.1

Item	Description	Size	Notes
1M	Pressure gauge	1/2"	
3M	Pressure vacuum gauge	1/2"	
6A	Casing drain	3/4"	
7A/B	Cooling liquid inlet/Outlet	1 1/2"	
8A	Seal leakage hole	1/2"	
12A	Circulation liquid outlet	1/2"	
13A	Constant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

BASEPLATE TYPE

(Main dimensions according with API 610 8" EDIC.)

Baseplate dimensions								Weight kg
Base No.	m3	m4	n7	n8	p	NR.	s	
9	2145	615	1395	1320	24	8	25	560
9.5	2445	715	1395	1320	24	8	25	630
10	2760	615	1395	1320	24	10	25	680
12	2780	615	1550	1475	26	10	25	830
13	3160	715	1550	1475	26	10	25	990
14	3875	715	1550	1475	26	12	25	1160

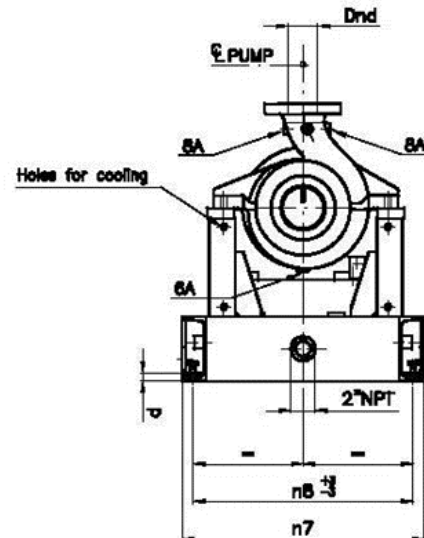
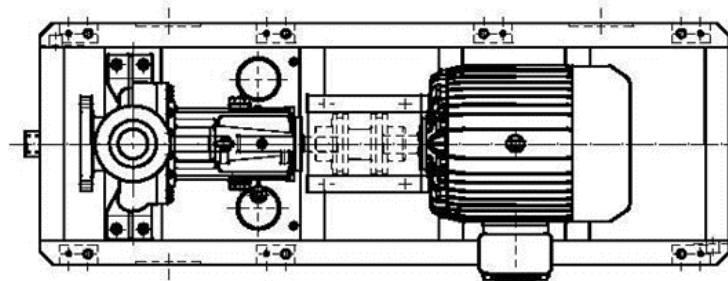
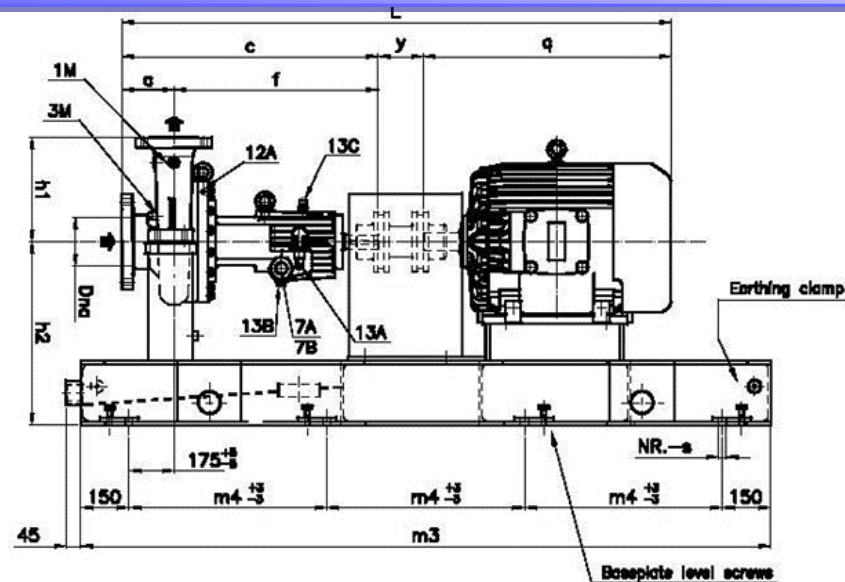
All dimensions are in mm and approximate
(not to be used for construction purpose)

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions								Weight kg.
		DNa	DNd	a	c	f	h1	h2	y	
OGH 150-350	04	200	150	200	985	785	530	700	180	425
OGH 200-350	04	250	200	250	1045	795	600	700	180	522
OGH 200-430	04	250	200	250	1040	790	650	750	180	690
OGH 250-350	04	300	250	300	1120	820	600	750	250	770
OGH 250-430	04	300	250	300	1100	800	700	850	250	922
OGH 250-530	04	300	250	300	1100	800	800	850	250	880
OGH 300-430	04	350	300	350	1120	820	750	850	250	1024

Motor dimensions											
IEC - 132S/M		IEC - 160M/L		IEC - 180M/L		IEC - 200L		IEC - 225S/M		IEC - 250M	
Weight kg. 90		Weight kg. 170		Weight kg. 230		Weight kg. 315		Weight kg. 380		Weight kg. 480	
L*	q*	L*	q*	L*	q*	L*	q*	L*	q*	L*	q*
1685	520	1825	660	1885	720	1950	785	1995	830	2060	895
1825	660	1885	720	1950	785	1995	830	2060	895	2120	955
1945	720	2010	785	2065	830	2115	895	2165	955	2220	1015
2005	785	2065	830	2115	895	2165	955	2220	1015	2275	1075
2200	830	2265	895	2315	955	2365	1015	2415	1075	2465	1135
2395	1045	2445	1095	2495	1155	2545	1215	2595	1275	2645	1335
2545	1195	2595	1255	2645	1315	2695	1375	2745	1435	2795	1495
2585	1195	2635	1255	2685	1315	2735	1375	2785	1435	2835	1495

OGH SERIES—BIRAGHI POMPE 1906



Suction and discharge flanges
ASA 150 or 300 ANSI16.5

Notes: Total weight =
Pump weight + Motor weight + Basepl. weight

Thread according to ASA B2.1

Item	Description	Size	Notes
1M	Pressure gauge	1/2"	
3M	Pressure vacuum gauge	1/2"	
6A	Cooling drain	1/2"	
7A/B	Cooling liquid inlet/Outlet	1 1/2"	
8A	Seal leakage hole	1/2"	
12A	Circulation liquid outlet	1/2"	
13A	Constant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

BASEPLATE TYPE

(Main dimensions according with API 610 8" EDIC.)

Baseplate dimensions									
Base NR.	m3	m4	n7	n8	p	NR.	s	Weight kg.	
1	1530	615	750	685	22	6	25	215	
1.5	1840	770	750	685	22	6	25	280	

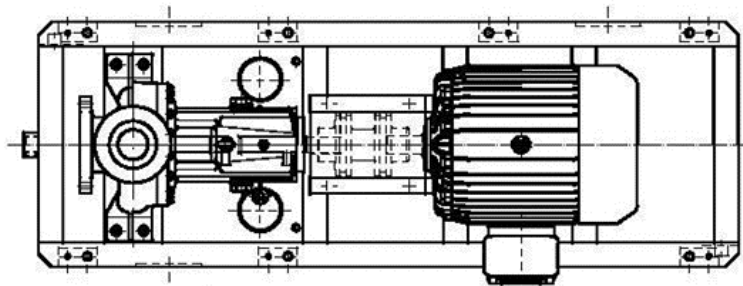
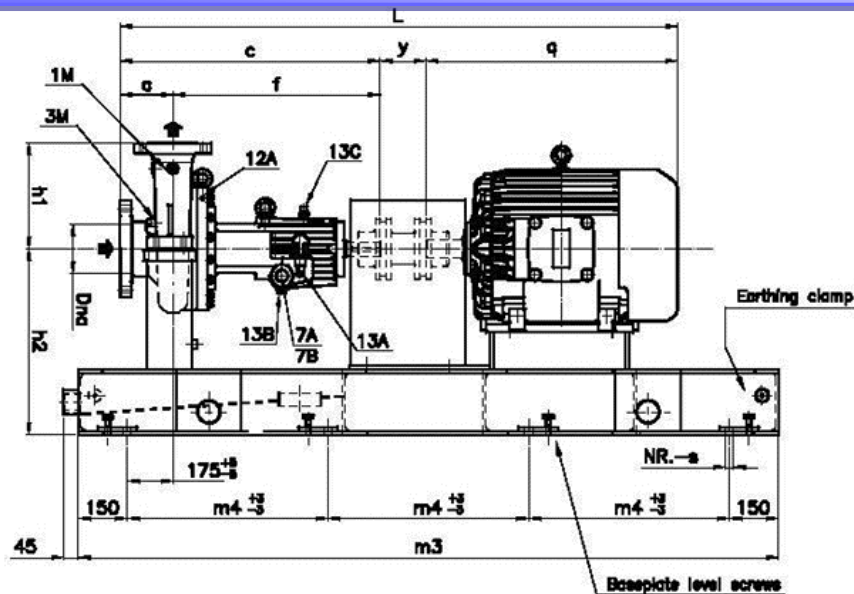
All dimensions are in mm and approximate
(not to be used for construction purpose)

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions								Weight kg.
		DNa	DNd	a	c	f	h1	h2	y	
OGH 40-150	01	50	40	125	705	580	225	450	125	112
OGH 40-151	01	50	40	125	705	580	225	450	125	112
OGH 40-190	01	50	40	125	705	580	250	450	125	118
OGH 40-191	01	50	40	125	705	580	250	450	125	118
OGH 40-230	01	50	40	125	705	580	280	480	125	144

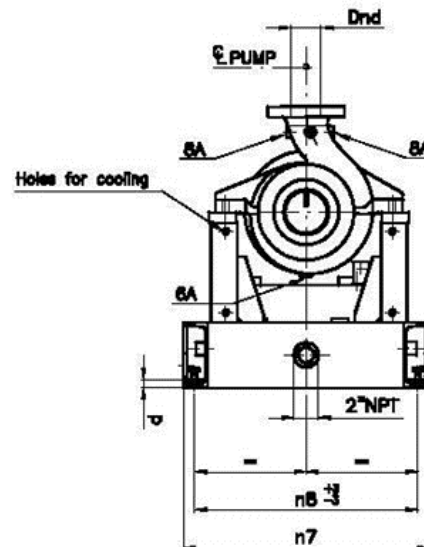
Motor dimensions																			
IEC - 80A/B				IEC - 90S/L				IEC - 100L				IEC - 112M				IEC - 132S/M			
Weight	kg. 11	Weight	kg. 30	Weight	kg. 40	Weight	kg. 65	Weight	kg. 90	Weight	kg. 170	Weight	kg. 230	Weight	kg. 315				
L*	q*	L*	q*	L*	q	L*	q	L*	q	L*	q*	L*	q*	L*	q	L*	q*	L*	q
1140	310	1195	365	1240	410	1280	450	1350	520	1490	680	1530	750	1570	820	1610	880	1650	940
1140	310	1195	365	1240	410	1280	450	1350	520	1490	680	1530	750	1570	820	1610	880	1650	940
		1195	365	1240	410	1280	450	1350	520	1490	680	1530	750	1570	820	1610	880	1650	940
		1195	365	1240	410	1280	450	1350	520	1490	680	1530	750	1570	820	1610	880	1650	940
				1240	410	1280	450	1350	520	1490	680	1530	750	1570	820	1610	880	1650	940

OGH SERIES—BIRAGHI POMPE 1906



All dimensions are in mm and approximate (not to be used for construction purpose)

Pump type	Bearing bracket	Pump dimensions								Weight
		DNd	DNd	a	c	f	h1	h2	y	kg.
OGH 50-150	01	80	50	125	705	580	225	450	125	116
OGH 50-151	01	80	50	125	705	580	225	450	125	116
OGH 50-190	01	80	50	125	705	580	225	450	125	135
OGH 50-191	01	80	50	125	705	580	225	450	125	135
OGH 50-230	01	80	50	125	705	580	225	450	125	149
OGH 50-231	01	80	50	125	705	580	225	450	125	150
OGH 50-290	02	80	50	150	815	665	315	520	180	204
OGH 50-350	02	80	50	175	845	670	350	600	180	234



Suction and discharge flanges
ASA 150 or 300 ANSI16.5

Notes: Total weight =
Pump weight + Motor weight + Basepl. weight

(*) May change with motor type

Thread according to ASA B2.1

Item	Description	Size	Notes
1M	Pressure gauge	1/2"	
3M	Pressure vacuum gauge	1/2"	
6A	Casing drain	1/2"	
7A/B	Cooling liquid Inlet/Outlet	1 1/2"	
8A	Seal leakage hole	1/2"	
12A	Circulation liquid outlet	1/2"	
13A	Constant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

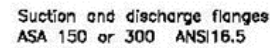
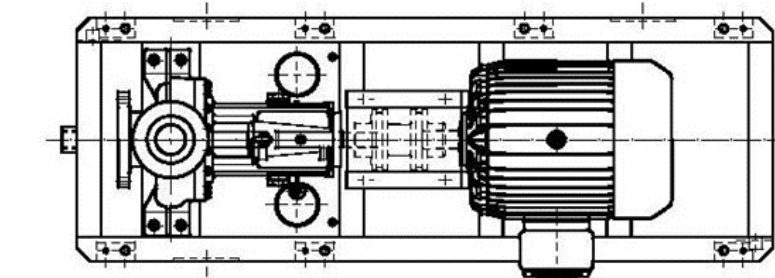
BASEPLATE TYPE

(Main dimensions according with API 610 8' EDC.)

Baseplate dimensions								Weight kg.
Base nr.	m3	m4	n7	n8	p	NR.	s	
1	1530	615	750	685	22	6	25	215
1.5	1840	770	750	685	22	6	25	280
2	2145	615	750	685	22	8	25	350
4	2445	715	915	840	24	8	25	450

Motor dimensions									
EC - 90S/L		EC - 100L		EC - 112M		EC - 132S/M		EC - 160M/L	
Weight	30	Weight	40	Weight	65	Weight	90	Weight	170
L*	q*	L*	q*	L*	q*	L*	q*	L*	q*
1195	365	1240	410	1280	450	1350	520	1490	665
1195	365	1240	410	1280	450	1350	520	1490	665
1195	365	1240	410	1280	450	1350	520	1490	665
1195	365	1240	410	1280	450	1350	520	1490	665
		1240	410	1290	450	1360	520	1500	665
				1290	450	1360	520	1500	665
						1460	520	1600	665
						1691	665	1745	720
								1800	775
								1825	830
								1855	830
								1820	895
								2070	1045
									4

OGH SERIES—BIRAGHI POMPE 1906



Notes: Total weight =
Pump weight + Motor weight + Basepl. weight

Thread according to ASA B2.1

Item	Description	Size	Notes
1M	Pressure gauge	1/2"	
3M	Pressure vacuum gauge	1/2"	
6A	Casing drain	1/2"	
7A/B	Cooling liquid Inlet/Outlet	1 1/2"	
8A	Seal leakage hole	1/2"	
12A	Circulation liquid outlet	1/2"	
13A	Constant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

BASEPLATE TYPE

(Main dimensions according with API 610 5th EDITION.)

Base No.	Baseplate dimensions							Weight lb.
	m3	m4	n7	n8	p	NR.	s	
1	1530	615	750	685	22	6	25	215
1.5	1840	770	750	685	22	6	25	280
2	2145	615	750	685	22	8	25	350
4	2445	715	915	840	24	8	25	450
4.5	2760	615	915	840	24	10	25	650

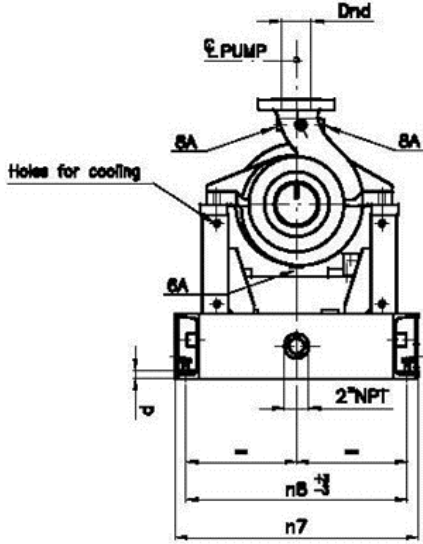
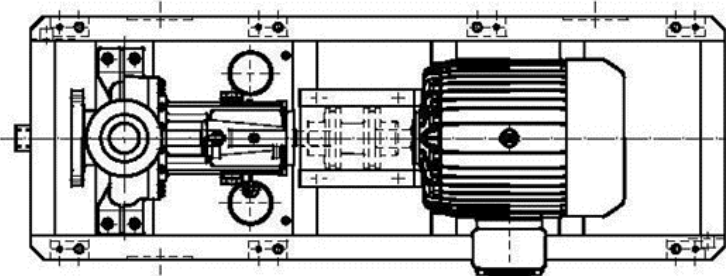
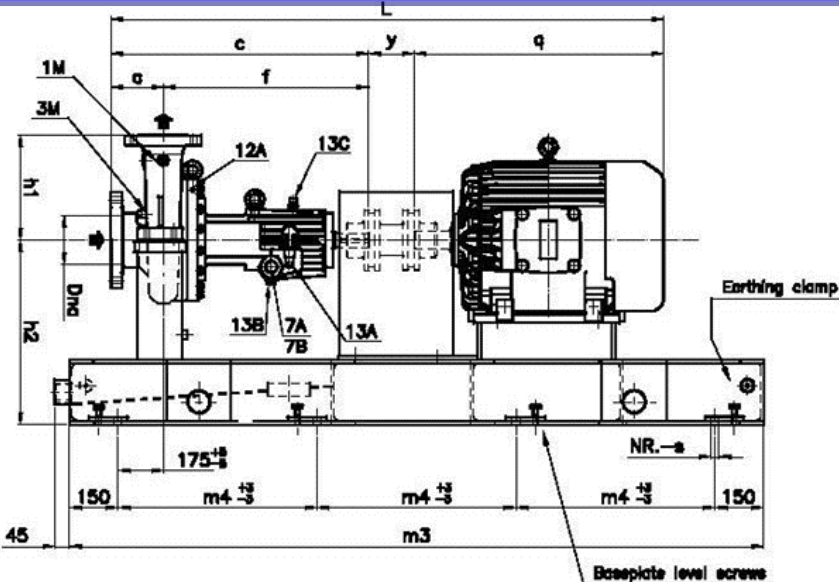
All dimensions are in mm and approximate
(not to be used for construction purpose)

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions								Weight kg.
		DNo	DNo	a	c	f	h1	h2	y	
OGH 80-190	01	100	80	150	745	595	280	480	125	156
OGH 80-191	01	100	80	150	745	595	280	480	125	156
OGH 80-230	02	100	80	175	850	675	315	520	180	194
OGH 80-290	02	100	80	175	845	670	350	560	180	205
OGH 80-291	02	100	80	175	855	680	350	600	180	208
OGH 80-350	03	100	80	200	980	780	400	650	180	254
OGH 80-430	03	100	80	175	955	780	450	650	180	274

Motor dimensions																														
IEC - 112M			IEC - 132S/M			IEC - 160M/L			IEC - 180M/L			IEC - 200L			IEC - 226S/M			IEC - 250M			IEC - 280S/M			IEC - 315S/M/L			IEC - 350L			
Weight		65	Weight		kg. 90	Weight		kg. 170	Weight		kg. 230	Weight		kg. 315	Weight		kg. 380	Weight		kg. 450	Weight		kg. 550	Weight		kg. 640	Weight		kg. 1000	
L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	L*	q*	$\frac{D_{max}}{mm}$	
1320	450	1	1390	520	1.5	1530	660	1.5	1590	720	1.5	1645	775	1.5																
1320	450	1	1390	520	1.5	1530	660	1.5	1590	720	1.5	1645	775	1.5																
			1550	520	1.5	1690	660	1.5	1750	720	2	1805	775	2	1805	775	2	1925	895	2										
						1685	660	1.5	1745	720	2	1800	775	2	1800	775	2	1920	895	2	2070	1045	4							
						1895	660	1.5	1755	720	2	1810	775	2	1810	775	2	1930	895	2	2075	1045	4							
															1935	775	4	2065	895	4	2205	1045	4	2355	1195	4.5	2550	1390	4.5	
															1910	775	4	2055	895	4	2180	1045	4	2330	1195	4.5				

OGH SERIES—BIRAGHI POMPE 1906



Suction and discharge flanges
ASA 150 or 300 ANSI 16.5

Notes: Total weight =
Pump weight + Motor weight + Basepl. weight

Thread according to ASA B2.1

Item	Description	Size	Notes
1M	Pressure gauge	1/2"	
3M	Pressure vacuum gauge	1/2"	
6A	Casing drain	3/4"	
7A/B	Cooling liquid Inlet/Outlet	1 1/2"	
8A	Seal leakage hole	1/2"	
12A	Circulation liquid outlet	1/2"	
13A	Constant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

BASEPLATE TYPE

(Main dimensions according with API 610 5th EDITION.)

Baseplate dimensions								Weight kg.
Base No.	m3	m4	n7	n8	p	NR.	s	
1.5	1840	770	750	685	22	6	25	280
2	2145	615	750	685	22	8	25	350
4	2445	715	915	840	24	8	25	450
5.5	2145	615	1065	990	24	8	25	470
6	2445	715	1065	990	24	8	25	470
6.5	2760	615	1065	990	24	10	25	650

All dimensions are in mm and approximate
(not to be used for construction purpose)

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions								Weight kg.
		DNe	DNd	a	c	f	h1	h2	y	
OGH 100-190	01	150	100	150	745	595	300	480	125	112
OGH 100-230	02	150	100	175	860	855	350	560	180	285
OGH 100-290	03	150	100	175	950	775	450	650	180	320
OGH 100-350	03	150	100	200	980	780	450	650	180	347
OGH 100-430	03	150	100	200	980	780	500	700	180	453
OGH 150-290	03	200	150	200	975	775	500	650	180	384
OGH 150-350	03	200	150	200	985	785	530	700	180	425

Motor dimensions																														
EC - 132S/M			EC - 160M/L			EC - 180M/L			EC - 200L			EC - 225S/M			EC - 250M			EC - 280S/M			EC - 315S/M/L			EC - 355L			EC - 400L			
Weight kg. 90			Weight kg. 170			Weight kg. 230			Weight kg. 315			Weight kg. 380			Weight kg. 480			Weight kg. 550			Weight kg. 640			Weight kg. 1000			Weight kg. 2120			
L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	L*	q*	Drive IM	
1390	520	1.5	1530	660	1.5	1505	720	1.5	1655	785	1.5	1700	830	2																
			1700	660	2	1780	720	2	1825	785	2	1870	830	2	1935	895	2	2270	1045	4										
												1980	830	5.5	2025	895	6	2175	1045	6	2325	1195	6.5							
												1990	830	5.5	2055	895	6	2205	1045	6	2355	1195	6.5	2550	1390	6.5				
																		2205	1045	6	2355	1195	6.5	2550	1390	6.5	2525	1565	6.5	
															2050	895	6	2200	1045	6	2350	1195	6.5	2545	1390	6.5				
																		2215	1045	6	2390	1195	6.5	2555	1380	6.5	2530	1565	6.5	

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