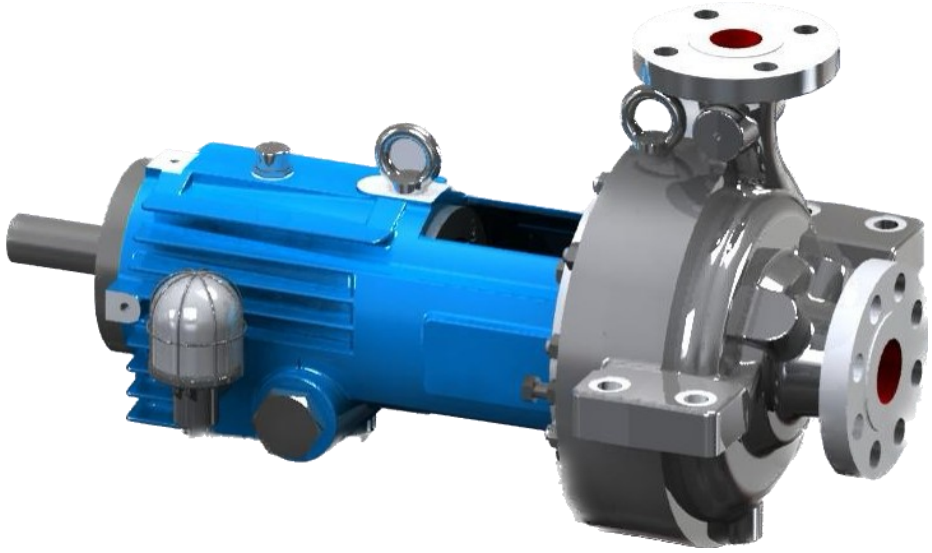
BROCHURE OGH SERIES

BIRAGHI POMPE 1906



- *ITALIAN QUALITY*
- *SINCE 1906*

API 610 Horizontal Process Pumps

2024

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 stan dards.
(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 cool ing 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 connec tions (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 hearing hou sing 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 dimension and will accept dual seal cartridge mounted with external drive.

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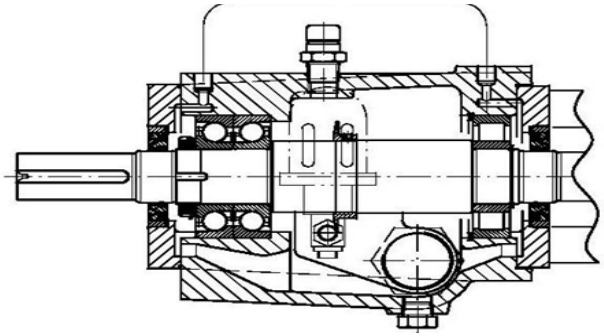
OIL MIST LUBRICATION

BEARING BRACKET

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

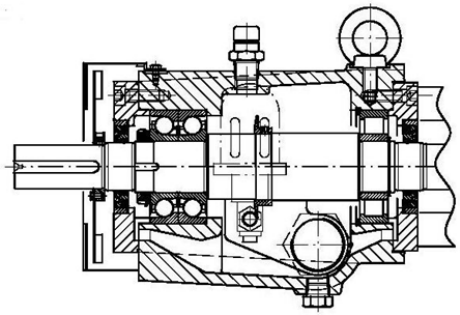


Standard materials of construction for the extra heavy OGH bearing bracket is steel with bronze deflectors that extend under the bearing covers as a safety feature in the event of a bearing failure. The inboard deflector is finned to provide fan action in the stuffingbox area to help dissipate heat.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

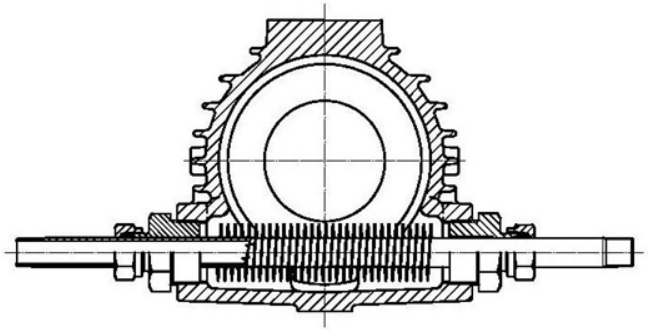
SHAFT AND SHAFT SLEEVES

The shaft is of large diameter, and short length design to reduce shaft detection. 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 Ali 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.

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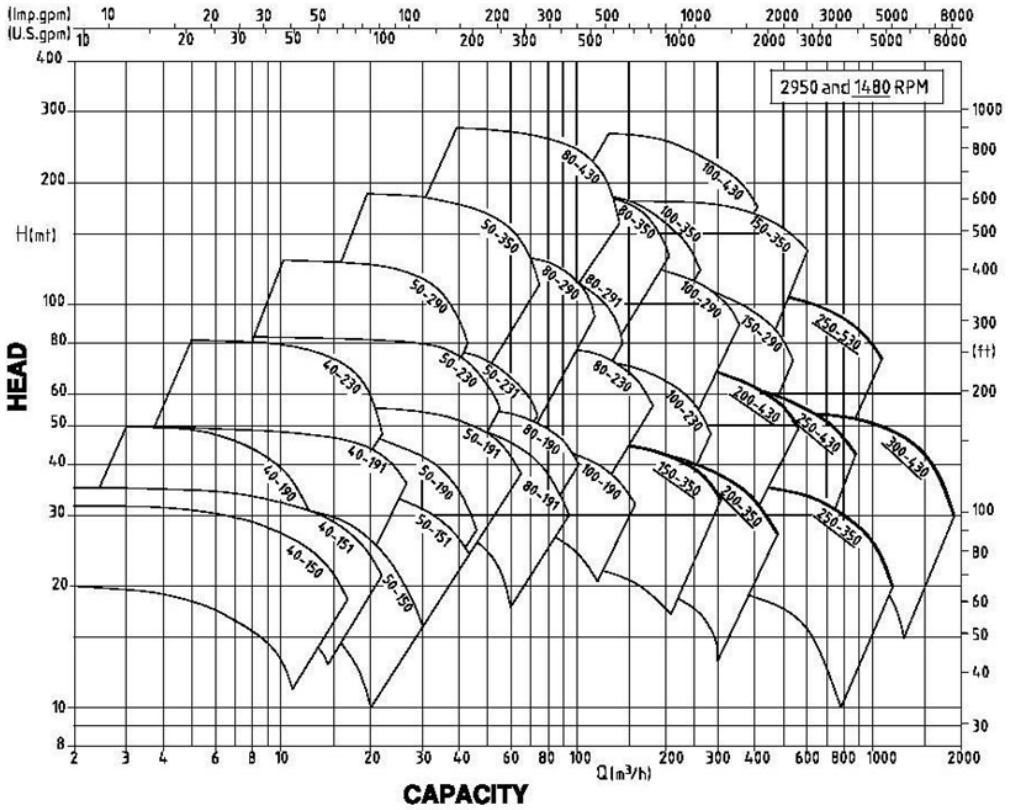
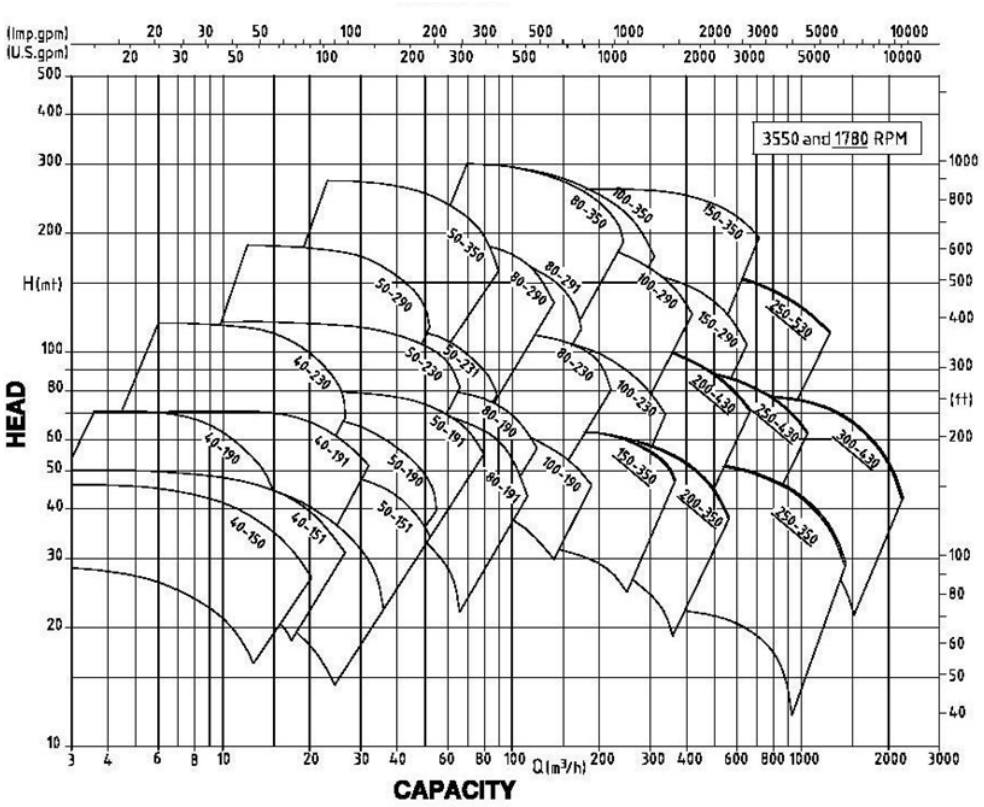
IMPELLER AND WEAR RINGS

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 be supplied open or semi-open.





Capacitiy	to 2000 m³ /hr
Head	to 280 m
Max working pressure	to 63 bar
Temperature	to 450 C°

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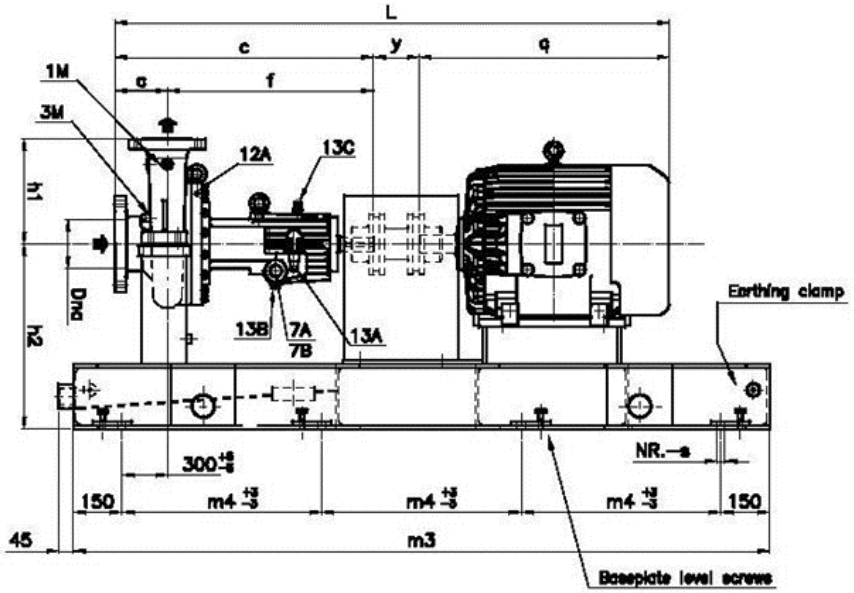

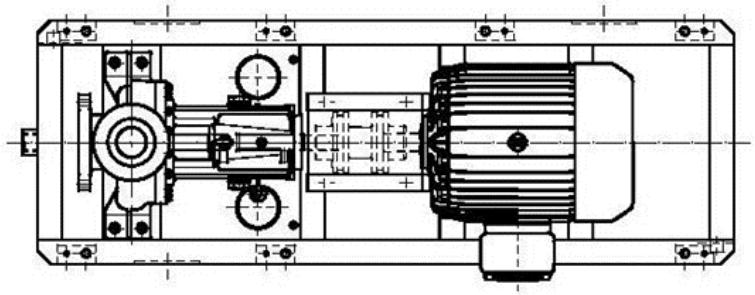

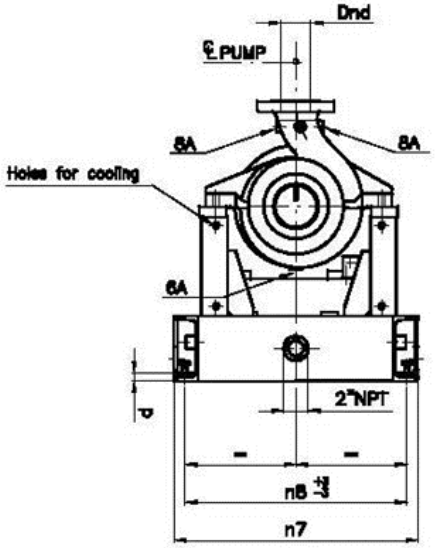

Suction and discharge flanges
ASA 150 or 300 ANSI16.5

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	Costant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

BASEPLATE TYPE
(Main dimensions according with API 610 8° EDIC.)

Base Nr.	Basepiate dimensions m3	m4	n7	n8	p	NR.	s	Weigth kg.
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	2760	615	1550	1475	28	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 costruction purpose)

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions DNa	DNd	a	c	f	h1	h2	y	Weigth kg.
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			IEC – 280S/M			IEC – 315S/M/L			IEC – 355L			IEC – 400L			IEC – 450L		
Weight kg. 90				Weight kg. 170			Weight kg. 230			Weight kg. 315			Weight kg. 380			Weight kg. 450			Weight kg. 780			Weight kg. 1230			Weight kg. 1650			Weight kg. 2260			Weight kg. 3250		
L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.	L°	q°	Rigge Nr.
1685	520	9	1825	660	9	1885	720	9	1950	785	9.5	1995	830	9.5	2060	895	9.5	2210	1045	10														
						1945	720	9.5	2010	785	9.5	2055	830	9.5	2120	895	9.5	2270	1045	10														
									2005	785	9.5	2050	830	9.5	2115	895	9.5	2265	1045	10	2415	1195	10											
												2200	830	10	2265	895	10	2415	1045	10	2465	1195	10											
																		2395	1045	12	2545	1195	12	2780	1430	13	2955	1605	14					
																					2545	1195	12	2780	1430	13	2955	1605	14	3250	1900	14		
																					2585	1195	12	2800	1430	13	2975	1605	14	3270	1900	14		

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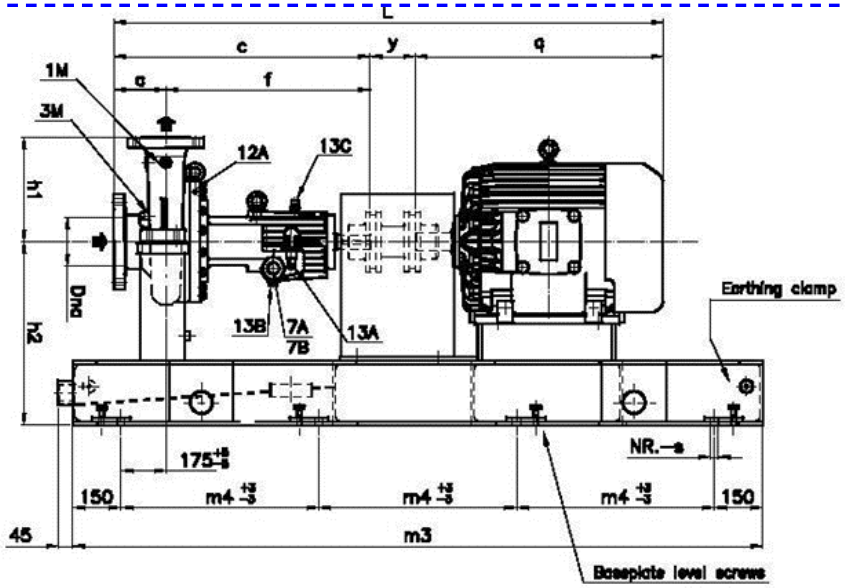

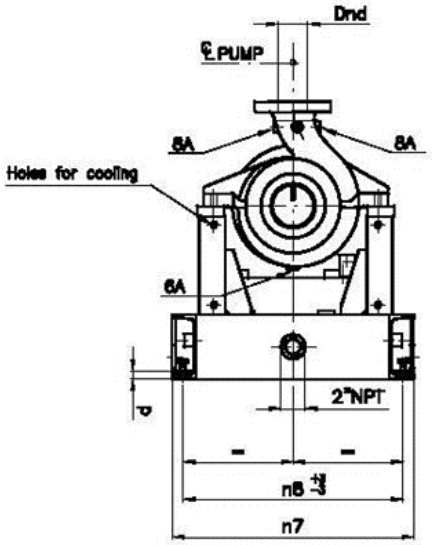

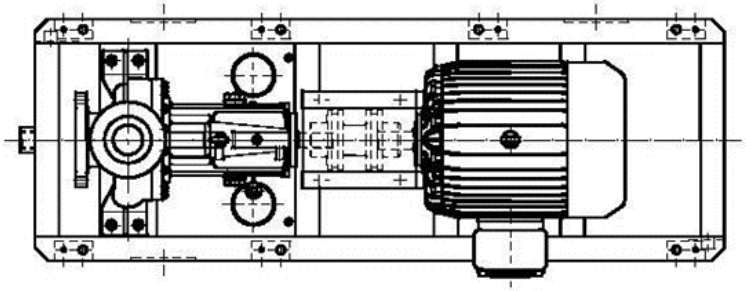

Suction and discharge flanges
ASA 150 or 300 ANSI16.5

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	1/2"	
7A/B	Cooling liquid inlet/Outlet	1 1/2"	
8A	Seal leakage hole	1/2"	
12A	Circulation liquid outlet	1/2"	
13A	Costant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

BASEPLATE TYPE
(Main dimensions according with API 610 8° EDIC.)

Base NR.	Baseplate dimensions m3	m4	n7	n8	p	NR.	a	Weigth 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 costruction purpose)

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions DNa	DNd	a	c	f	h1	h2	y	Weigth kg.
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			IEC – 160M/L			IEC – 180M/L			IEC – 200L					
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*	Base NR.	L*	q*	Base NR.	L*	q	Base NR.	L*	q	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q	Base NR.
1140	310	1	1195	365	1	1240	410	1	1280	450	1												
1140	310	1	1195	365	1	1240	410	1	1280	450	1	1350	520	1.5									
			1195	365	1	1240	410	1	1280	450	1	1350	520	1.5									
			1195	365	1	1240	410	1	1280	450	1	1350	520	1.5	1490	660	1.5						
						1240	410	1	1280	450	1	1350	520	1.5	1490	660	1.5						

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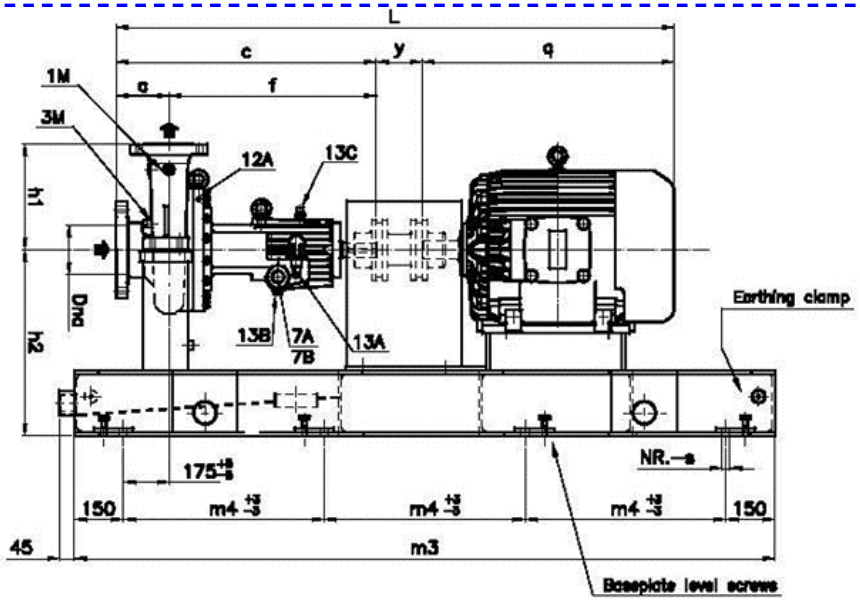

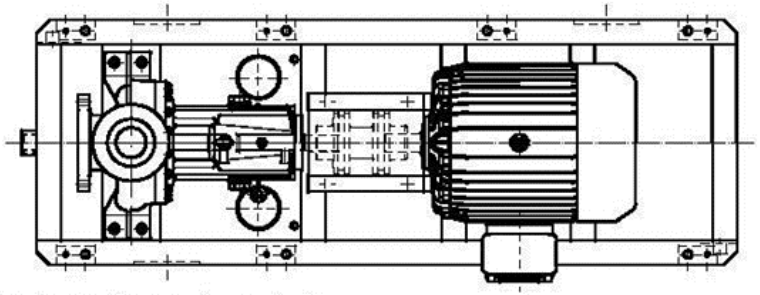

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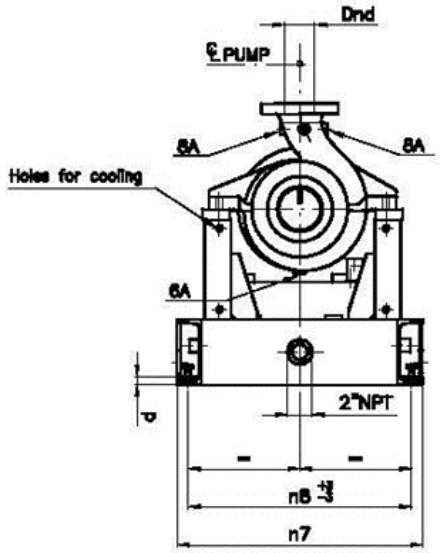

Suction and discharge flanges
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Notes: Total weight =
Pump weight + Motor weight + Basepl. weight

Thread according to ASA B2.1

Item	Description	Size	Notes
1M	Pressure gauge	1/2"	
3M	Pressure vacuum gauge	1/2"	
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12A	Circulation liquid outlet	1/2"	
13A	Coolant level oiler	1/4"	
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13C	Vent plug	1/2"	

BASEPLATE TYPE
(Main dimensions according with API 610 8° EDIC.)

Base NR.	Baseplate dimensions m3	m4	n7	n8	p	NR.	a	Weight kg.
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

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions DNa	DNd	a	c	f	h1	h2	y	Weigth 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

Motor dimensions																																
IEC – 90S/L			IEC – 100L			IEC – 112M			IEC – 132S/M			IEC – 160M/L			IEC – 180M/L			IEC – 200L			IEC – 225S/M			IEC – 250M			IEC – 280S/M					
Weight 30			Weight 40			Weight 65			Weight kg. 90			Weight kg. 170			Weight kg. 230			Weight kg. 315			Weight kg. 360			Weight kg. 450			Weight kg. 550					
L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.	L*	q*	Base NR.			
1195	365	1	1240	410	1	1280	450	1	1350	520	1.5																					
1195	365	1	1240	410	1	1280	450	1	1350	520	1.5	1490	665	1.5																		
1195	365	1	1240	410	1	1280	450	1	1350	520	1.5	1490	665	1.5																		
1195	365	1	1240	410	1	1280	450	1	1350	520	1.5	1490	665	1.5	1550	720	1.5															
			1240	410	1	1290	450	1	1360	520	1.5	1500	665	1.5	1560	720	1.5	1615	775	1.5												
						1290	450	1	1360	520	1.5	1500	665	1.5	1560	720	1.5	1615	775	1.5												
									1460	520	1.5	1500	665	1.5	1560	720	1.5	1715	775	2	1825	830	2								
												1691	665	1.5	1745	720	1.5	1800	775	2	1855	830	2	1920	895	2	2070	1045	4		

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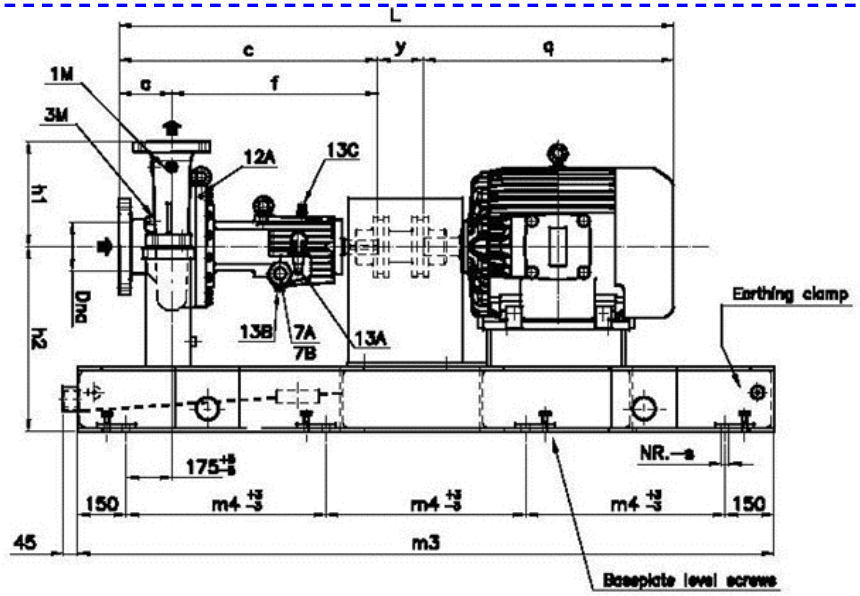
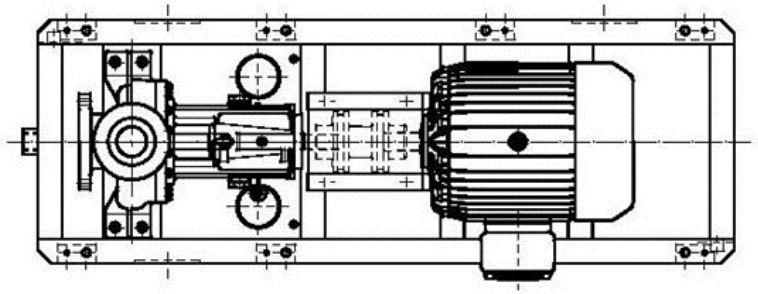
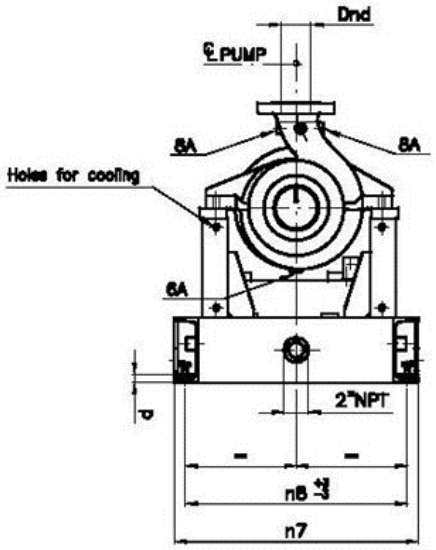






Thread according to ASA B2.1

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"	

Suction and discharge flanges
ASA 150 or 300 ANSI16.5

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

BASEPLATE TYPE
(Main dimensions according with API 610 8° EDIC.)

Base NR.	Baseplate dimensions m3	m4	n7	n8	p	NR.	s	Weigth kg.
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

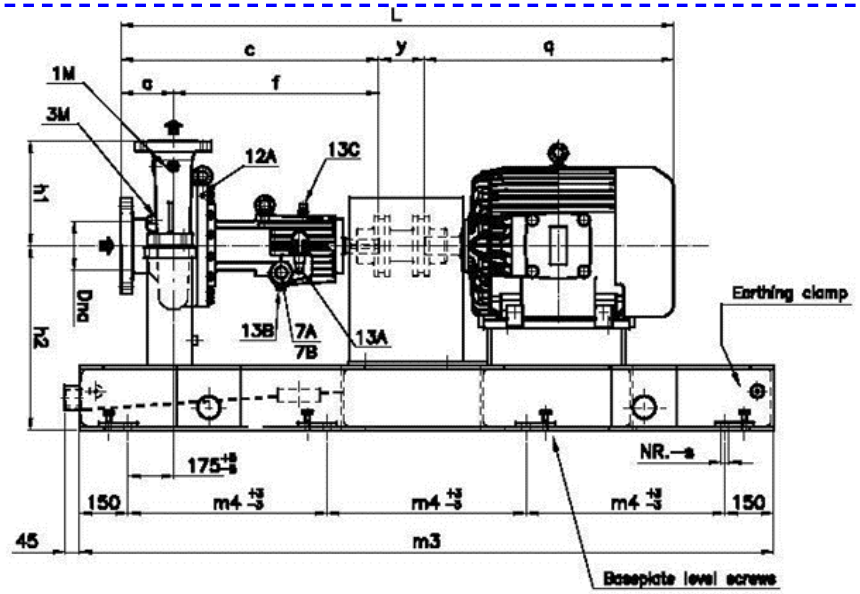
All dimensions are in mm and approximate
(not to be used for costruction purpose)

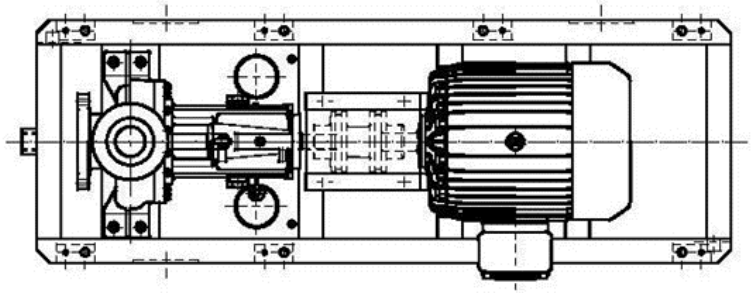
(*) May change with motor type

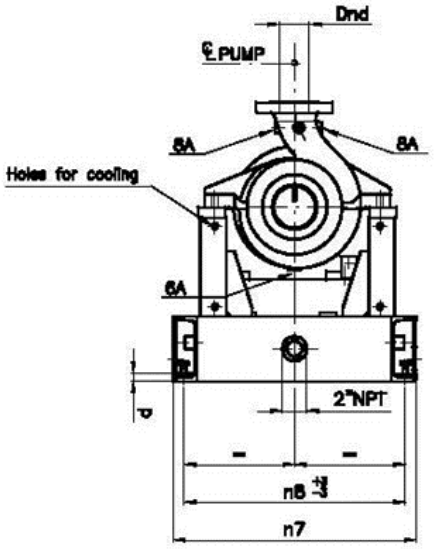
Pump type	Bearing bracket	Pump dimensions DNg	DNd	a	c	f	h1	h2	y	Weigth kg.
OGH 50-190	01	100	80	150	745	595	280	480	125	156
OGH 50-191	01	100	80	150	745	595	280	480	125	156
OGH 50-230	02	100	80	175	850	675	315	520	180	194
OGH 50-290	02	100	80	175	845	670	350	560	180	205
OGH 50-291	02	100	80	175	855	880	350	600	180	208
OGH 50-350	03	100	80	200	980	780	400	650	180	254
OGH 50-430	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 – 225S/M			IEC – 250M			IEC – 280S/M			IEC – 315S/M/L			IEC – 355L		
	Weight kg. 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. 1660		
	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.	L°	q°	Frame NR.
	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	1590	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						
							1695	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	2353	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







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	Costant level oiler	1/4"	
13B	Oil drain	1/2"	
13C	Vent plug	1/2"	

Suction and discharge flanges
ASA 150 or 300 ANSI16.5

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

BASEPLATE TYPE
(Main dimensions according with API 610 8° EDIC.)

Base Nr.	Baseplate dimensions m3	m4	n7	n8	p	NR.	s	Weigth kg.
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 costruction purpose)

(*) May change with motor type

Pump type	Bearing bracket	Pump dimensions DNs	DNd	a	c	f	h1	h2	y	Weigth kg.
OGH 100-190	01	150	100	150	745	595	300	480	125	112
OGH 100-230	02	150	100	175	860	655	350	560	180	265
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																																	
IEC – 132S/M				IEC – 160M/L			IEC – 180M/L			IEC – 200L			IEC – 225S/M			IEC – 250M			IEC – 280S/M			IEC – 315S/M/L			IEC – 355L			IEC – 400L					
Weight kg. 90				Weight kg. 170			Weight kg. 230			Weight kg. 315			Weight kg. 380			Weight kg. 460			Weight kg. 550			Weight kg. 840			Weight kg. 1800			Weight kg. 2120					
L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.	L*	q*	Bore NR.			
1390	520	1.5	1530	660	1.5	1505	720	1.5	1555	785	1.5	1700	830	2																		
			1700	660	2	1760	720	2	1825	785	2	1870	830	2	1935	895	2	2270	1045	4												
												1960	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	1390	6.5	2530	1565	6.5			

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