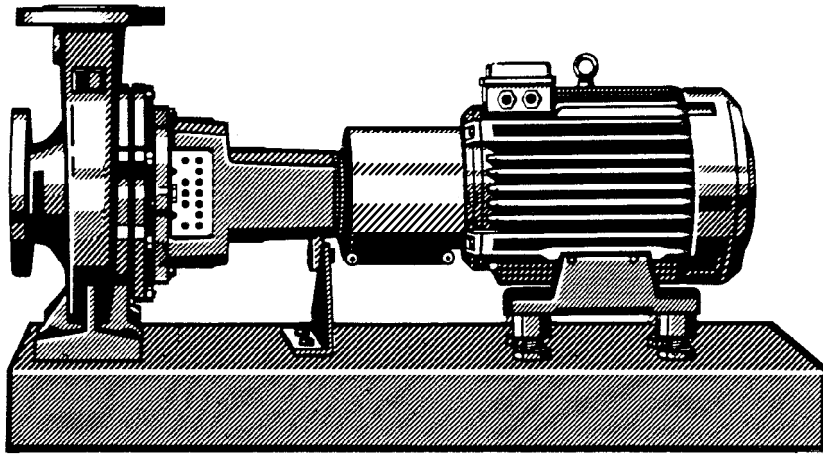


Standardized Pumps



Fields of Application

- Water supply
- Sprinkling
- Irrigation
- Drainage
- Air-conditioning
- Drinking water
- Waste water
- Cooling water

Fluid

Pure liquids not chemically or mechanically aggressive to the pump materials.

Operating Data

Q up to 660 m³/h, (183 l/s)
H up to 102 m
t -15 °C to +90 °C
p₂ up to 16 bar

Design/Variants

Horizontal volute casing pump, single-stage with power ratings and main dimensions to EN 733, with bearing bracket, in back pull-out design.

Shaft with replaceable shaft sleeve/shaft protecting sleeve in the shaft seal area.

Volute casing and impeller with replaceable casing wear rings.

Volute casing with integrally cast pump feet.

Bearings

Deep-groove ball bearings, grease-lubricated.

Shaft Seal

Mechanical seal or gland packing.

Designation

Type series Trianorm G 2 40 - 160
Material variant, e.g. JL 1040
Shaft seal, e.g. mechanical seal
Size, e.g.

Accessories

Drive

Surface-cooled IEC-three-phase squirrel cage motor

Winding: up to 2.2 kW: 220-240 V/380-420 V
3 kW and above: 380-420 V/660-725 V

Design: IMB 3

Enclosure: IP 55

Thermal class: F with temperature sensors: 3 PTC resistors

Operating mode: continuous operation S1

Coupling

Flexible coupling.

Contact Guard

Coupling guard to EN 294.

Baseplate

Sectional steel / folded steel plate for the complete unit (pump and motor) in torsion-resistant design.

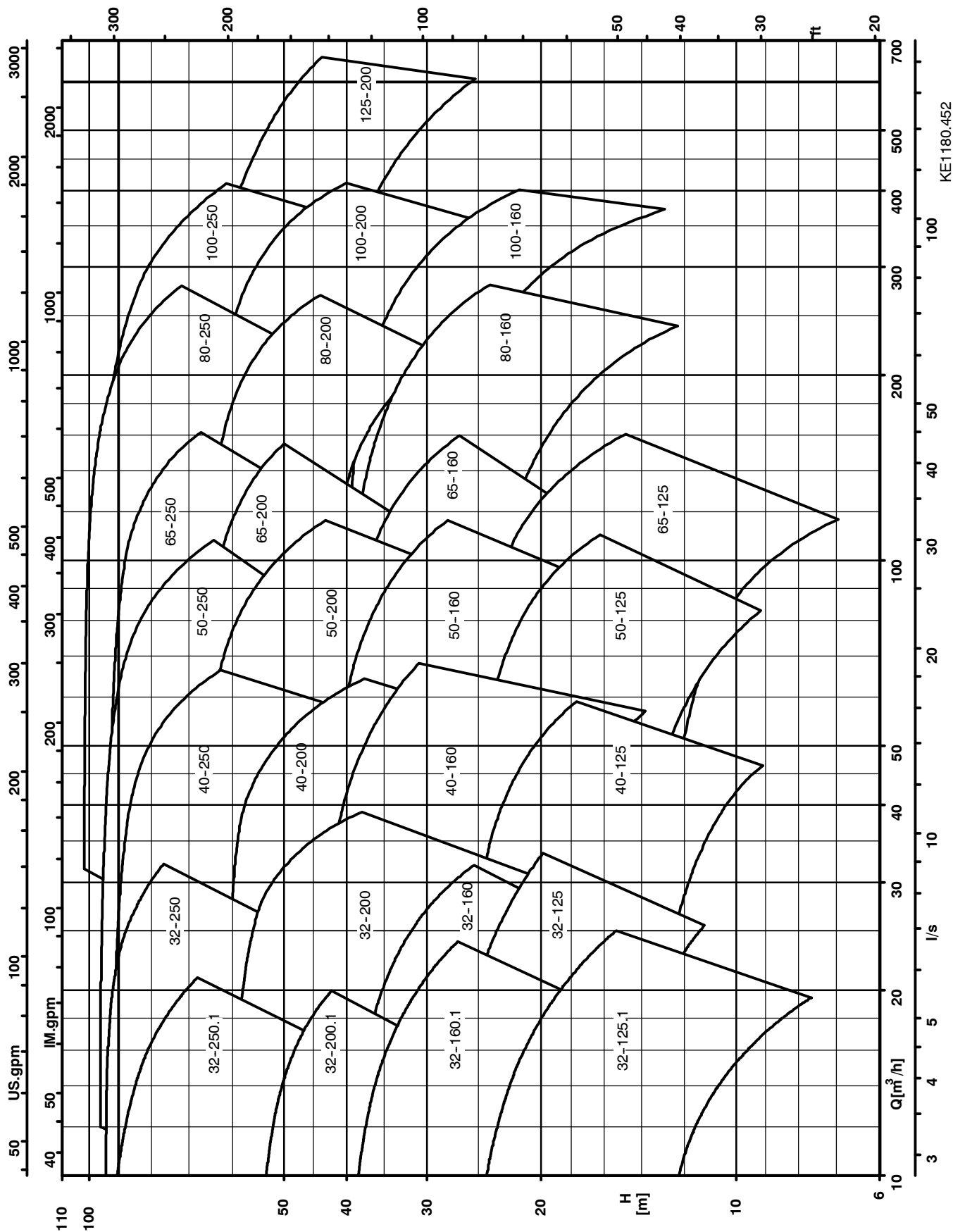
Certification

Certified quality management ISO 9001.

Selection charts

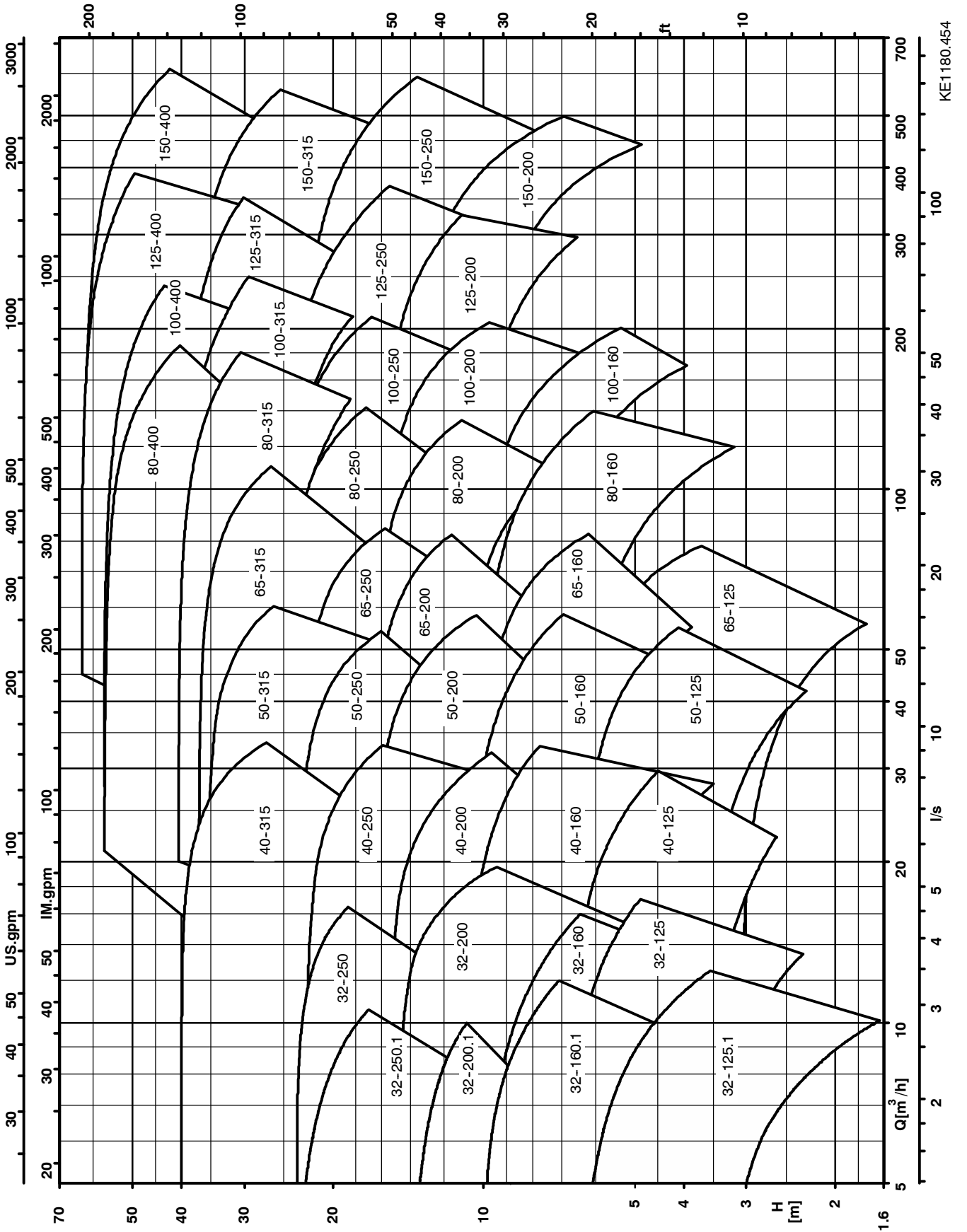
Trianorm

n = 2900 rpm



Trianorm

n = 1450 rpm



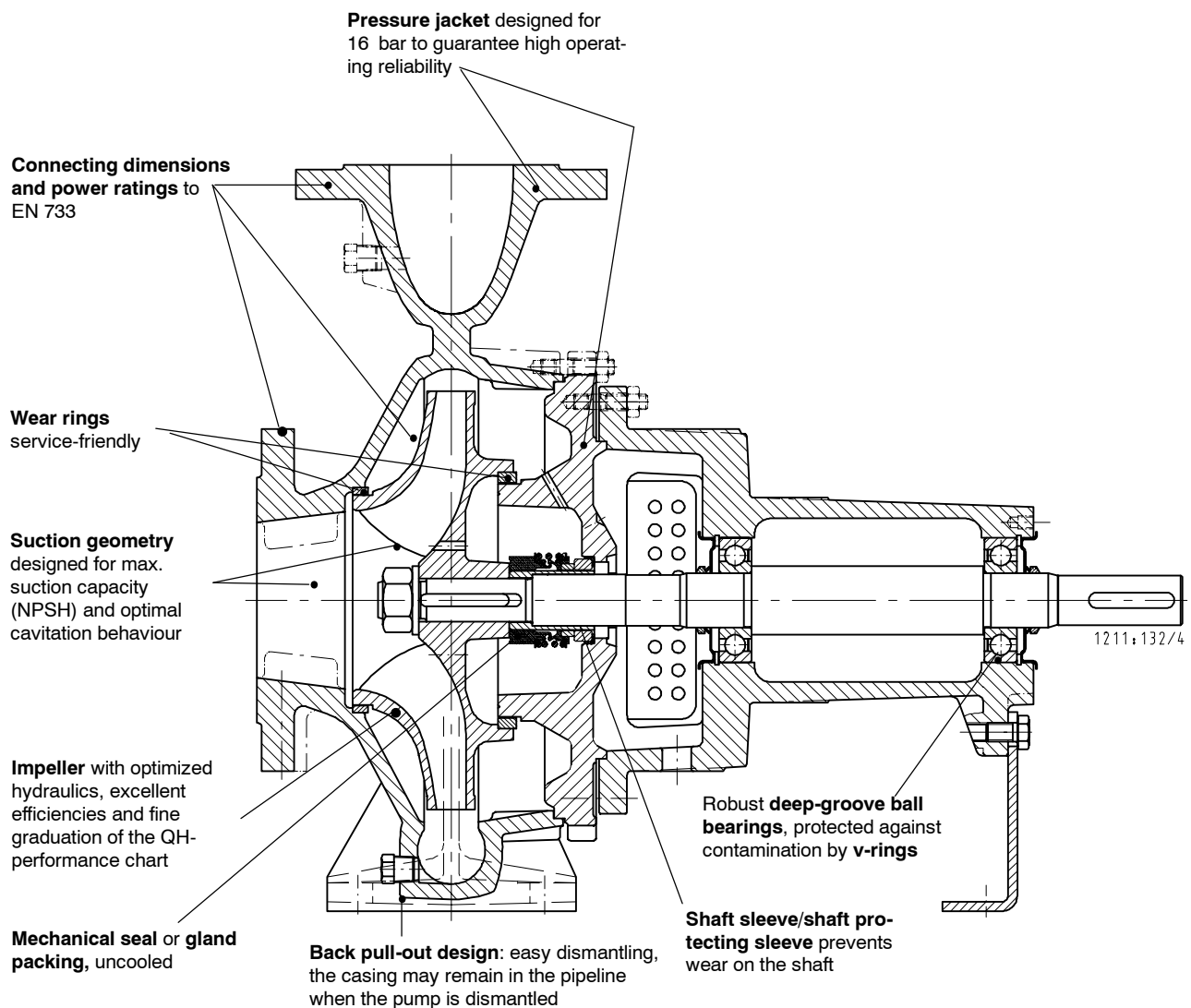
Materials/Variants

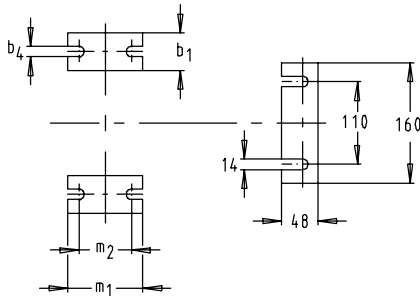
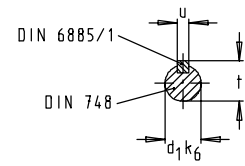
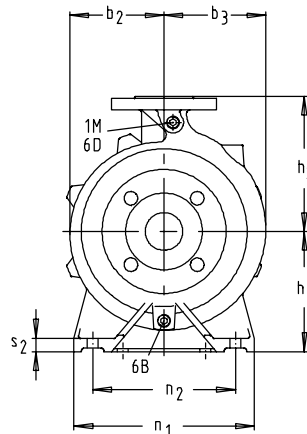
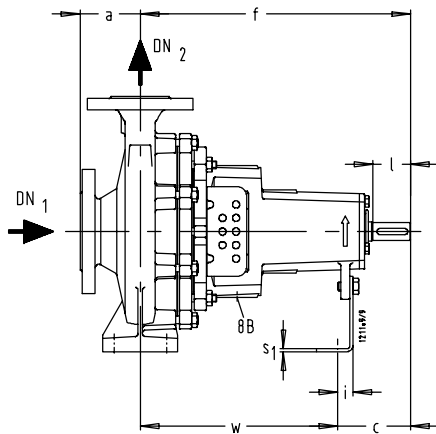
	Trianorm G1	Trianorm G2	Trianorm M1	Trianorm M2
Volute casing	Grey cast iron JL 1040 ¹⁾		Grey cast iron JL 1040 ¹⁾	
Discharge cover	Grey cast iron JL 1040 ¹⁾		Grey cast iron JL 1040 ¹⁾	
Impeller	Grey cast iron JL 1040 ¹⁾		Tin bronze CC 480K-GS ²⁾	
Wear rings	Grey cast iron GG		Grey cast iron / Lead bronze GG / CC 495K-GS	
Shaft	C45N		C45N	
Bearing bracket	Grey cast iron JL 1040 ¹⁾		Grey cast iron JL 1040 ¹⁾	
Variants	Gland packing	Mechanical seal	Gland packing	Mechanical seal

1) to EN 1561 = GJL-250

2) to EN 1982

Benefits at a Glance



Trianorm


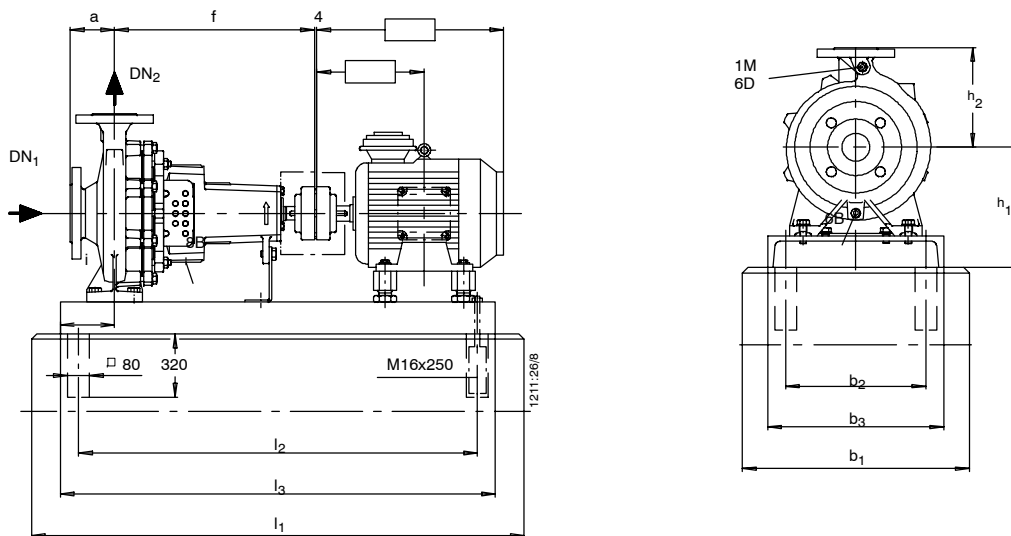
	DN 32-150	DN 200
Trianorm G, M	EN 1092-2/ PN 16/21/JL 1040/B	
	PN 10/21/JL 1040/B	

1 M	Pressure gauge connection
6 B	Fluid drain
6 D	Fluid priming and venting
8 B	Leakage drain

Dimensions in mm

Etanorm	DN ₁	DN ₂	a	b ₁	b ₂	b ₃	b ₄	c	d ₁ k ₆	f	h ₁	h ₂	i	l	m ₁	m ₂	n ₁	n ₂	s ₁	s ₂	t	u	w	Trianorm	
																								G, M	1) 6 B 6 D
32-125.1	50	32	80	50	113	113	14	100	24	360	112	140	23	50	100	70	190	140	4	15	27	8	260	Rc 3/8	G 1/2
32-160.1	50	32	80	50	116	125	14	100	24	360	132	160	23	50	100	70	240	190	4	15	27	8	260	Rc 3/8	G 1/2
32-200.1	50	32	80	50	128	137	14	100	24	360	160	180	25	50	100	70	240	190	6	18	27	8	260	Rc 3/8	G 1/2
32-250.1	50	32	100	65	164	171	14	100	24	360	180	225	25	50	125	95	320	250	6	18	27	8	260	Rc 3/8	G 1/2
32-125	50	32	80	50	113	113	14	100	24	360	112	140	23	50	100	70	190	140	4	15	27	8	260	Rc 3/8	G 1/2
32-160	50	32	80	50	113	125	14	100	24	360	132	160	23	50	100	70	240	190	4	15	27	8	260	Rc 3/8	G 1/2
32-200	50	32	80	50	132	141	14	100	24	360	160	180	25	50	100	70	240	190	6	18	27	8	260	Rc 3/8	G 1/2
32-250	50	32	100	65	170	176	14	100	24	360	180	225	25	50	125	95	320	250	6	18	27	8	260	Rc 3/8	G 1/2
40-125	65	40	80	50	113	113	14	100	24	360	112	140	23	50	100	70	210	160	4	15	27	8	260	Rc 3/8	G 1/2
40-160	65	40	80	50	115	131	14	100	24	360	132	160	23	50	100	70	240	190	4	15	27	8	260	Rc 3/8	G 1/2
40-200	65	40	100	50	115	131	14	100	24	360	160	180	25	50	100	70	265	212	6	18	27	8	260	Rc 3/8	G 1/2
40-250	65	40	100	65	165	178	14	100	24	360	180	225	25	50	125	95	320	250	6	18	27	8	260	Rc 3/8	G 1/2
40-315	65	40	125	65	194	203	14	130	32	470	225	250	24	80	125	95	345	280	6	18	35	10	340	Rc 3/8	G 1/2
50-125	65	50	100	50	113	128	14	100	24	360	132	160	23	50	100	70	240	190	4	18	27	8	260	Rc 3/8	G 1/2
50-160	65	50	100	50	126	147	14	100	24	360	160	180	25	50	100	70	265	212	6	18	27	8	260	Rc 3/8	G 1/2
50-200	65	50	100	50	145	165	14	100	24	360	160	200	25	50	100	70	265	212	6	18	27	8	260	Rc 3/8	G 1/2
50-250	65	50	100	65	168	184	14	100	24	360	180	225	25	50	125	95	320	250	6	18	27	8	260	Rc 3/8	G 1/2
50-315	65	50	125	65	200	216	14	130	32	470	225	280	24	80	125	95	345	280	6	18	35	10	340	Rc 3/8	G 1/2
65-125	80	65	100	65	120	148	14	100	24	360	160	180	25	50	125	95	280	212	6	18	27	8	260	Rc 3/8	G 1/2
65-160	80	65	100	65	130	158	14	100	24	360	160	200	25	50	125	95	280	212	6	18	27	8	260	Rc 3/8	G 1/2
65-200	80	65	100	65	154	177	14	100	24	360	180	225	25	50	125	95	320	250	6	18	27	8	260	Rc 3/8	G 1/2
65-250	80	65	100	80	180	200	19	130	32	470	200	250	24	80	160	120	360	280	6	20	35	10	340	Rc 3/8	G 1/2
65-315	80	65	125	80	208	229	19	130	32	470	225	280	24	80	160	120	400	315	6	20	35	10	340	Rc 3/8	G 1/2
80-160	100	80	125	65	153	192	14	100	24	360	180	225	25	50	125	95	320	250	6	18	27	8	260	Rc 3/8	G 1/2
80-200	100	80	125	65	161	189	14	130	32	470	180	250	24	80	125	95	345	280	6	18	35	10	340	Rc 3/8	G 1/2
80-250	100	80	125	80	184	210	19	130	32	470	200	280	24	80	160	120	400	315	6	18	35	10	340	Rc 3/8	G 1/2
80-315	100	80	125	80	220	244	19	130	32	470	250	315	24	80	160	120	400	315	6	20	35	10	340	Rc 3/8	G 1/2
80-400	100	80	125	80	253	276	19	160	42	530	280	355	25	110	160	120	435	355	6	20	45	12	370	Rc 3/8	G 1/2
100-160	125	100	125	80	178	225	19	130	32	470	200	280	24	80	160	120	360	280	6	18	35	10	340	Rc 1/2	G 1/2
100-200	125	100	125	80	173	213	19	130	32	470	200	280	24	80	160	120	360	280	6	18	35	10	340	Rc 1/2	G 1/2
100-250	125	100	140	80	190	220	19	130	32	470	225	280	24	80	160	120	400	315	6	18	35	10	340	Rc 1/2	G 1/2
100-315	125	100	140	80	225	255	19	130	32	470	250	315	24	80	160	120	400	315	6	18	35	10	340	Rc 1/2	G 1/2
100-400	125	100	140	100	253	280	24	160	42	530	280	355	25	110	200	150	500	400	6	20	45	12	370	Rc 1/2	G 1/2
125-200	150	125	140	80	195	244	19	130	32	470	250	315	24	80	160	120	400	315	6	20	35	10	340	Rc 1/2	G 1/2
125-250	150	125	140	80	226	275	19	130	32	470	250	355	24	80	160	120	400	315	6	20	35	10	340	Rc 1/2	G 1/2
125-315	150	125	140	100	238	278	24	160	42	530	280	355	25	110	200	150	500	400	6	20	35	12	370	Rc 1/2	G 1/2
125-400	150	125	140	100	275	306	24	160	42	530	315	400	25	110	200	150	500	400	6	20	45	12	370	Rc 1/2	G 1/2
150-200	200	150	160	100	238	315	24	130	32	470	280	400	24	80	200	150	550	450	6	20	35	10	340	Rc 1/2	G 1/2
150-250	200	150	160	100	228	298	24	130	32	470	280	400	24	80	200	150	500	400	6	20	35	10	340	Rc 1/2	G 1/2
150-315	200	150	160	100	255	303	24	160	42	530	280	400	25	110	200	150	550	450	6	20	45	12	370	Rc 1/2	G 1/2
150-400	200	150	160	100	285	325	24	160	42	530	315	450	25	110	200	150	550	450	6	20	45	12	370	Rc 1/2	G 1/2

1) Rc = ISO 7/1
2) G = ISO 228/1

Trianorm 32-125.1 - 50-160


Maße in mm

Trianorm	Motor IP 55			Bild/ Fig./ Afbeelding													
	1450 1 / min kW	2900	Bau- größe/ Size		DN ₁	DN ₂	a	b ₁	b ₂	b ₃	f	h ₁	h ₂	i	l ₁	l ₂	l ₃
32-125.1	0.55	-	80	A	50	32	80	450	240	300	360	212	140	100	860	650	710
	-	1.1	80	A	50	32	80	450	240	300	360	212	140	100	860	650	710
	-	1.5	90S	A	50	32	80	450	240	300	360	212	140	100	860	650	710
	-	2.2	90L	A	50	32	80	450	240	300	360	212	140	100	950	740	800
32-160.1	0.55	-	80	A	50	32	80	450	240	300	360	232	160	100	860	650	710
	-	2.2	90L	A	50	32	80	450	240	300	360	232	160	100	950	740	800
	-	3.0	100L	A	50	32	80	450	240	300	360	232	160	100	1050	840	900
	-	4.0	112M	A	50	32	80	450	240	300	360	232	160	100	1050	840	900
32-200.1	0.55	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710
	0.75	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710
	-	3.0	100L	A	50	32	80	450	240	300	360	260	180	100	1050	840	900
	-	4.0	112M	A	50	32	80	450	240	300	360	260	180	100	1050	840	900
	-	5.5	132S	A	50	32	80	450	240	300	360	260	180	100	1050	840	900
32-250.1	0.75	-	80	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	1.1	-	90S	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	-	1.5	90L	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	-	5.5	132S	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	-	7.5	132S	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	-	11.0	160M	A	50	32	100	500	280	350	360	280	225	112	1270	1060	1120
32-125	0.55	-	80	A	50	32	80	450	240	300	360	212	140	100	860	650	710
	-	1.5	90S	A	50	32	80	450	240	300	360	212	140	100	860	650	710
	-	2.2	90L	A	50	32	80	450	240	300	360	212	140	100	950	740	800
	-	3.0	100L	A	50	32	80	450	240	300	360	212	140	100	1050	840	900
32-160	0.55	-	80	A	50	32	80	450	240	300	360	232	160	100	860	650	710
	-	2.2	90L	A	50	32	80	450	240	300	360	232	160	100	950	740	800
	-	3.0	100L	A	50	32	80	450	240	300	360	232	160	100	1050	840	900
	-	4.0	112M	A	50	32	80	450	240	300	360	232	160	100	1050	840	900
32-200	0.55	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710
	0.75	-	80	A	50	32	80	450	240	300	360	260	180	100	860	650	710
	1.1	-	90S	A	50	32	80	450	240	300	360	260	180	100	860	650	710
	-	4.0	112M	A	50	32	80	450	240	300	360	260	180	100	1050	840	900
	-	5.5	132S	A	50	32	80	450	240	300	360	260	180	100	1050	840	900
	-	7.5	132S	A	50	32	80	450	240	300	360	260	180	100	1050	840	900
	-	11.0	160M	A	50	32	80	500	280	350	360	260	180	100	1270	1060	1120
32-250	1.1	-	90S	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	1.5	-	90L	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	2.2	-	100L	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	-	7.5	132S	A	50	32	100	500	280	350	360	280	225	112	1050	840	900
	-	11.0	160M	A	50	32	100	500	280	350	360	280	225	112	1270	1060	1120
	-	15.0	160M	A	50	32	100	500	280	350	360	280	225	112	1270	1060	1120
40-125	0.55	-	80	A	65	40	80	450	240	300	360	212	140	100	860	650	710
	-	2.2	90L	A	65	40	80	450	240	300	360	212	140	100	950	740	800
	-	3.0	100L	A	65	40	80	450	240	300	360	212	140	100	1050	840	900
	-	4.0	112M	A	65	40	80	450	240	300	360	212	140	100	1050	840	900

Maße in mm

Trianorm	Motor IP 55			Bild/ Fig./ Afbeelding	DN ₁	DN ₂	a	b ₁	b ₂	b ₃	f	h ₁	h ₂	i	l ₁	l ₂	l ₃
	1450 1 / min kW	2900	Baugröße Size														
40-160	0.55	-	80	A	65	40	80	450	240	300	360	232	160	100	860	650	710
	0.75	-	80	A	65	40	80	450	240	300	360	232	160	100	860	650	710
	1.1	-	90S	A	65	40	80	450	240	300	360	232	160	100	860	650	710
	-	3.0	100L	A	65	40	80	450	240	300	360	232	160	100	1050	840	900
	-	4.0	112M	A	65	40	80	450	240	300	360	232	160	100	1050	840	900
	-	5.5	132S	A	65	40	80	450	240	300	360	232	160	100	1050	840	900
	-	7.5	132S	A	65	40	80	450	240	300	360	232	160	100	1050	840	900
40-200	0.75	-	80	A	65	40	100	450	240	300	360	260	180	100	860	650	710
	1.1	-	90S	A	65	40	100	450	240	300	360	260	180	100	860	650	710
	1.5	-	90L	A	65	40	100	450	240	300	360	260	180	100	950	740	800
	-	5.5	132S	A	65	40	100	450	240	300	360	260	180	100	1050	840	900
	-	7.5	132S	A	65	40	100	450	240	300	360	260	180	100	1050	840	900
	-	11.0	160M	A	65	40	100	500	280	350	360	260	180	100	1270	1060	1120
40-250	1.1	-	90S	A	65	40	100	500	280	350	360	280	225	112	1050	840	900
	1.5	-	90L	A	65	40	100	500	280	350	360	280	225	112	1050	840	900
	2.2	-	100L	A	65	40	100	500	280	350	360	280	225	112	1050	840	900
	3.0	-	100L	A	65	40	100	500	280	350	360	280	225	112	1050	840	900
	-	11.0	160M	A	65	40	100	500	280	350	360	280	225	112	1270	1060	1120
	-	15.0	160M	A	65	40	100	500	280	350	360	280	225	112	1270	1060	1120
	-	18.5	160L	A	65	40	100	500	280	350	360	280	225	112	1270	1060	1120
	-	22.0	180M	A	65	40	100	550	320	400	360	290	225	112	1400	1190	1250
40-315	2.2	-	100L	A	65	40	125	500	280	350	470	325	250	112	1050	840	900
	3.0	-	100L	A	65	40	125	500	280	350	470	325	250	112	1050	840	900
	4.0	-	112M	A	65	40	125	500	280	350	470	325	250	112	1150	940	1000
	5.5	-	132S	A	65	40	125	500	280	350	470	325	250	112	1150	940	1000
50-125	0.55	-	80	A	65	50	100	450	240	300	360	232	160	100	860	650	710
	0.75	-	80	A	65	50	100	450	240	300	360	232	160	100	860	650	710
	1.1	-	90S	A	65	50	100	450	240	300	360	232	160	100	860	650	710
	-	3.0	100L	A	65	50	100	450	240	300	360	232	160	100	1050	840	900
	-	4.0	112M	A	65	50	100	450	240	300	360	232	160	100	1050	840	900
	-	5.5	132S	A	65	50	100	450	240	300	360	232	160	100	1050	840	900
	-	7.5	132S	A	65	50	100	450	240	300	360	232	160	100	1050	840	900
50-160	0.75	-	80	A	65	50	100	450	240	300	360	260	180	100	860	650	710
	1.1	-	90S	A	65	50	100	450	240	300	360	260	180	100	860	650	710
	1.5	-	90L	A	65	50	100	450	240	300	360	260	180	100	950	740	800
	-	5.5	132S	A	65	50	100	450	240	300	360	260	180	100	1050	840	900
	-	7.5	132S	A	65	50	100	450	240	300	360	260	180	100	1050	840	900
	-	11.0	160M	A	65	50	100	500	280	350	360	260	180	100	1270	1060	1120

	DN 32, 40, 50	DN 65
Trianorm G, M	EN 1092-2/DN../PN 16/21/JL 1040/B	

		Trianorm G, M
1 M	Druckmessgerät-Anschluss / Pressure measuring instrument connection / Indicateur de pression / Manometro / Aparato manometrico / Manometer	Rc ³ / ₈ ¹⁾
6 B	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide véhiculé / Scarico del liquido convogliato / Vaciado del líquido de impulsión / aftap, pomphuis	Rc ³ / ₈ ¹⁾
6 D	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et dégazage de liquide véhiculé / Riempimento e scarico del liquido convogliato / Llenado y desairea- ción del líquido de impulsión / vul en ontlichting	Rc ³ / ₈ ¹⁾
8 B	Leckflüssigkeit-Ablass / Leakage drain / Vidange liquide de fuite / Uscita del liquido di fuga / Salida del líquido de fugas / lekvloestof afvoer	G ¹ / ₂ ²⁾

1) Rc = ISO 7/1

2) G = ISO 228/1

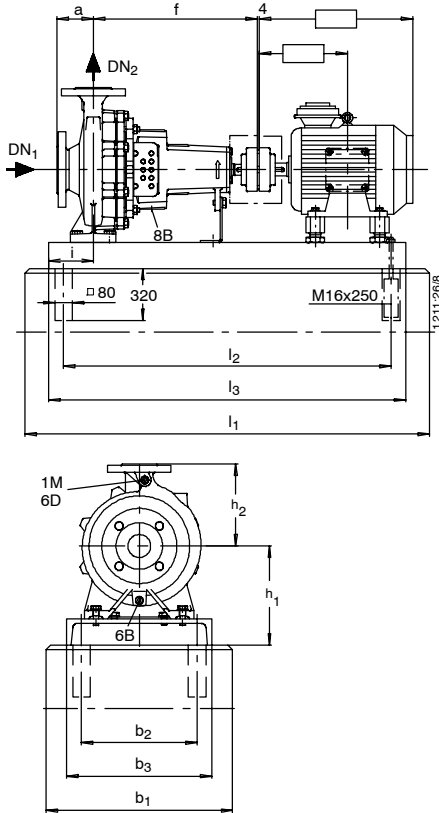
Trianorm 50-200 - 80-250


Bild A / Fig. A / Afbeelding A

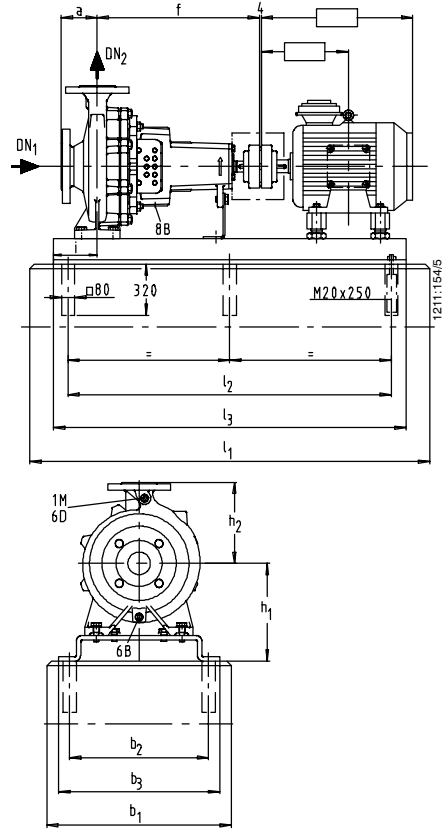


Bild B / Fig. B / Afbeelding B

Maße in mm

Trianorm	Motor IP 55		Bau- größe/ Size	Bild/ Fig./ Afbeel- ding	DN ₁	DN ₂	a	b ₁	b ₂	b ₃	f	h ₁	h ₂	i	l ₁	l ₂	l ₃
	1450 2900 1 / min	kW															
50-200	1.5	-	90L	A	65	50	100	450	240	300	360	260	200	100	950	740	800
	2.2	-	100L	A	65	50	100	450	240	300	360	260	200	100	1050	840	900
	3.0	-	100L	A	65	50	100	450	240	300	360	260	200	100	1050	840	900
	-	11.0	160M	A	65	50	100	500	280	350	360	260	200	100	1270	1060	1120
	-	15.0	160M	A	65	50	100	500	280	350	360	260	200	100	1270	1060	1120
	-	18.5	160L	A	65	50	100	500	280	350	360	260	200	100	1270	1060	1120
-	22.0	180M	A	65	50	100	550	320	400	360	290	200	100	1400	1190	1250	
50-250	2.2	-	100L	A	65	50	100	500	280	350	360	280	225	112	1050	840	900
	3.0	-	100L	A	65	50	100	500	280	350	360	280	225	112	1050	840	900
	4.0	-	112M	A	65	50	100	500	280	350	360	280	225	112	1050	840	900
	-	15.0	160M	A	65	50	100	500	280	350	360	280	225	112	1270	1060	1120
	-	18.5	160L	A	65	50	100	500	280	350	360	280	225	112	1270	1060	1120
	-	22.0	180M	A	65	50	100	550	320	400	360	290	225	112	1400	1190	1250
-	30.0	200L	A	65	50	100	550	320	400	360	310	225	112	1400	1190	1250	
50-315	3.0	-	100L	A	65	50	125	500	280	350	470	325	250	112	1050	840	900
	4.0	-	112M	A	65	50	125	500	280	350	470	325	250	112	1150	940	1000
	5.5	-	132S	A	65	50	125	500	280	350	470	325	250	112	1150	940	1000
	7.5	-	132M	A	65	50	125	500	280	350	470	325	250	112	1270	1060	1120
65-125	0.55	-	80	A	80	65	100	450	240	300	360	260	180	112	860	650	710
	0.75	-	80	A	80	65	100	450	240	300	360	260	180	112	860	650	710
	1.1	-	90S	A	80	65	100	450	240	300	360	260	180	112	860	650	710
	-	4.0	112M	A	80	65	100	450	240	300	360	260	180	112	1050	840	900
	-	5.5	132S	A	80	65	100	450	240	300	360	260	180	112	1050	840	900
	-	7.5	132S	A	80	65	100	450	240	300	360	260	180	112	1050	840	900
-	11.0	160M	A	80	65	100	500	280	350	360	260	180	112	1270	1060	1120	
65-160	1.1	-	90S	A	80	65	100	450	240	300	360	260	200	112	860	650	710
	1.5	-	90L	A	80	65	100	450	240	300	360	260	200	112	950	740	800
	2.2	-	100L	A	80	65	100	450	240	300	360	260	200	112	1050	840	900
	-	7.5	132S	A	80	65	100	450	240	300	360	260	200	112	1050	840	900
	-	11.0	160M	A	80	65	100	500	280	350	360	260	200	112	1270	1060	1120
	-	15.0	160M	A	80	65	100	500	280	350	360	260	200	112	1270	1060	1120

Maße in mm

Trianorm	Motor IP 55			Bild/ Fig./ Abbeil- ding	DN ₁	DN ₂	a	b ₁	b ₂	b ₃	f	h ₁	h ₂	i	l ₁	l ₂	l ₃
	1450 1 / min	2900 1 / min	Baugröße Size														
65-200	2.2	-	100L	A	80	65	100	500	280	350	360	280	225	112	1050	840	900
	3.0	-	100L	A	80	65	100	500	280	350	360	280	225	112	1050	840	900
	4.0	-	112M	A	80	65	100	500	280	350	360	280	225	112	1050	840	900
	-	15.0	160M	A	80	65	100	500	280	350	360	280	225	112	1270	1060	1120
	-	18.5	160L	A	80	65	100	500	280	350	360	280	225	112	1270	1060	1120
	-	22.0	180M	A	80	65	100	550	320	400	360	290	225	112	1400	1190	1250
	-	30.0	200L	A	80	65	100	550	320	400	360	310	225	112	1400	1190	1250
65-250	3.0	-	100L	A	80	65	100	550	320	400	470	310	250	130	1150	940	1000
	4.0	-	112M	A	80	65	100	550	320	400	470	310	250	130	1150	940	1000
	5.5	-	132S	A	80	65	100	550	320	400	470	310	250	130	1150	940	1000
	-	22.0	180M	A	80	65	100	550	320	400	470	310	250	130	1400	1190	1250
	-	30.0	200L	A	80	65	100	550	320	400	470	310	250	130	1400	1190	1250
	-	37.0	200L	A	80	65	100	550	320	400	470	310	250	130	1400	1190	1250
	-	45.0	225M	B	80	65	100	750	550	590	470	365	250	130	1550	940	1400
65-315	5.5	-	132S	A	80	65	125	550	320	400	470	335	280	130	1150	940	1000
	7.5	-	132M	A	80	65	125	550	320	400	470	335	280	130	1150	940	1000
	11.0	-	160M	A	80	65	125	550	320	400	470	335	280	130	1400	1190	1250
80-160	1.5	-	90L	A	100	80	125	500	280	350	360	280	225	112	1050	840	900
	2.2	-	100L	A	100	80	125	500	280	350	360	280	225	112	1050	840	900
	3.0	-	100L	A	100	80	125	500	280	350	360	280	225	112	1050	840	900
	-	15.0	160M	A	100	80	125	500	280	350	360	280	225	112	1270	1060	1120
	-	18.5	160L	A	100	80	125	500	280	350	360	280	225	112	1270	1060	1120
	-	22.0	180M	A	100	80	125	550	320	400	360	290	225	112	1400	1190	1250
	-	30.0	200L	A	100	80	125	550	320	400	360	290	225	112	1400	1190	1250
80-200	2.2	-	100L	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000
	3.0	-	100L	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000
	4.0	-	112M	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000
	5.5	-	132S	A	100	80	125	500	280	350	470	280	250	112	1150	940	1000
	-	22.0	180M	A	100	80	125	550	320	400	470	290	250	112	1400	1190	1250
	-	30.0	200L	A	100	80	125	550	320	400	470	310	250	112	1400	1190	1250
	-	37.0	200L	A	100	80	125	550	320	400	470	310	250	112	1400	1190	1250
	-	45.0	225M	B	100	80	125	750	550	590	470	365	250	112	1550	940	1400
	-	45.0	225M	B	100	80	125	750	550	590	470	365	250	112	1550	940	1400
80-250	4.0	-	112M	A	100	80	125	550	320	400	470	310	280	130	1150	940	1000
	5.5	-	132S	A	100	80	125	550	320	400	470	310	280	130	1150	940	1000
	7.5	-	132M	A	100	80	125	550	320	400	470	310	280	130	1150	940	1000
	11.0	-	160M	A	100	80	125	550	320	400	470	310	280	130	1400	1190	1250
	-	37.0	200L	A	100	80	125	550	320	400	470	310	280	130	1400	1190	1250
	-	45.0	225M	B	100	80	125	750	550	590	470	365	280	130	1550	940	1400
	-	55.0	250M	B	100	80	125	810	600	650	470	390	280	130	1750	1060	1600
	-	75.0	280S	B	100	80	125	880	670	720	470	420	280	130	1750	1060	1600

	DN 50, 65, 80, 100
Trianorm G, M	EN 1092-2/DN../PN 16/21/JL 1040/B

		Trianorm G, M
1 M	Druckmessgerät-Anschluss / Pressure measuring instrument connection / Indicateur de pression / Manometro / Aparato manometrico / Manometer	Rc ³ / ₈ ¹⁾
6 B	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide véhiculé / Scarico del liquido convogliato / Vaciado del líquido de impulsión / aftap, pomphuis	Rc ³ / ₈ ¹⁾
6 D	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et dégazage de liquide véhiculé / Riempimento e scarico del liquido convogliato / Llenado y desairea- ción del líquido de impulsión / vul en ontluchting	Rc ³ / ₈ ¹⁾
8 B	Leckflüssigkeit-Ablass / Leakage drain / Vidange liquide de fuite / Uscita del liquido di fuga / Salida del líquido de fugas / lekvloestof afvoer	G ¹ / ₂ ²⁾

1) Rc = ISO 7/1

2) G = ISO 228/1

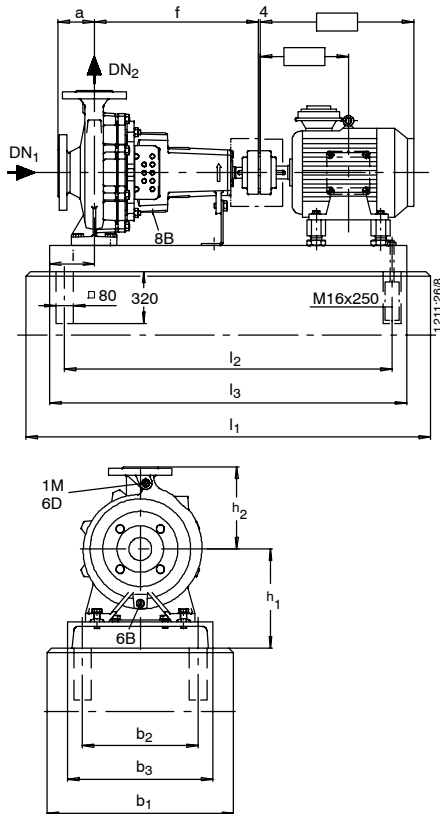
Trianorm 80-315 - 150-400


Bild A / Fig. A / Afbeelding A

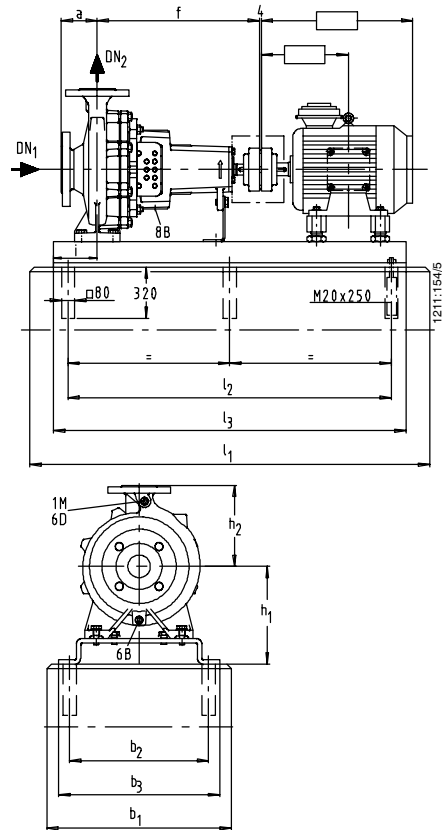


Bild B / Fig. B / Afbeelding B

Maße in mm

Trianorm	Motor IP 55		Bau- größe/ Size	Bild/ Fig./ Afbeel- ding	DN ₁	DN ₂	a	b ₁	b ₂	b ₃	f	h ₁	h ₂	i	l ₁	l ₂	l ₃
	1450	2900															
80-315	11.0	-	160M	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250
	15.0	-	160L	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250
	18.5	-	180M	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250
	-	-	180L	A	100	80	125	550	320	400	470	360	315	130	1400	1190	1250
80-400	15.0	-	160L	B	100	80	125	750	550	590	530	420	355	112	1550	940	1400
	18.5	-	180M	B	100	80	125	750	550	590	530	420	355	112	1550	940	1400
	22.0	-	180L	B	100	80	125	750	550	590	530	420	355	112	1550	940	1400
	30.0	-	200L	B	100	80	125	750	550	590	530	420	355	112	1550	940	1400
100-160	3.0	-	100L	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000
	4.0	-	112M	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000
	-	22.0	180M	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250
	-	30.0	200L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250
	-	37.0	200L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250
100-200	4.0	-	112M	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000
	5.5	-	132S	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000
	7.5	-	132M	A	125	100	125	550	320	400	470	310	280	130	1150	940	1000
	-	37	200L	A	125	100	125	550	320	400	470	310	280	130	1400	1190	1250
	-	45	225M	B	125	100	125	750	550	590	470	365	280	130	1550	940	1400
	-	55	250M	B	125	100	125	810	600	650	470	390	280	130	1750	1060	1600
100-250	7.5	-	132M	A	125	100	140	550	320	400	470	335	280	130	1150	940	1000
	11.0	-	160M	A	125	100	140	550	320	400	470	335	280	130	1400	1190	1250
	15.0	-	160L	A	125	100	140	550	320	400	470	335	280	130	1400	1190	1250
	-	55	250M	B	125	100	140	810	600	650	470	390	280	130	1750	1060	1600
	-	75	280S	B	125	100	140	880	670	720	470	420	280	130	1750	1060	1600
	-	90	280M	B	125	100	140	880	670	720	470	420	280	130	1750	1060	1600
100-315	15.0	-	160L	A	125	100	140	550	320	400	470	360	315	130	1400	1190	1250
	18.5	-	180M	A	125	100	140	550	320	400	470	360	315	130	1400	1190	1250
	22.0	-	180L	A	125	100	140	550	320	400	470	360	315	130	1400	1190	1250
	30.0	-	200L	B	125	100	140	750	550	590	470	390	315	130	1550	940	1400

Maße in mm

Trianorm	Motor IP 55			Bild/ Fig./ Abbeel- ding													
	1450 1 / min kW	2900	Baugröße Size		DN ₁	DN ₂	a	b ₁	b ₂	b ₃	f	h ₁	h ₂	i	l ₁	l ₂	l ₃
100-400	22.0	-	180L	B	125	100	140	810	600	650	530	420	355	112	1750	1060	1600
	30.0	-	200L	B	125	100	140	810	600	650	530	420	355	112	1750	1060	1600
	37.0	-	225S	B	125	100	140	810	600	650	530	420	355	112	1750	1060	1600
125-200	7.5	-	132M	A	150	125	140	550	320	400	470	360	315	130	1150	940	1000
	11.0	-	160M	A	150	125	140	550	320	400	470	360	315	130	1400	1190	1250
	-	55	250M	B	150	125	140	810	600	650	470	390	315	130	1750	1060	1600
	-	75	280S	B	150	125	140	880	670	720	470	420	315	130	1750	1060	1600
	-	90	280M	B	150	125	140	880	670	720	470	420	315	130	1750	1060	1600
125-250	11.0	-	160M	A	150	125	140	550	320	400	470	360	355	130	1400	1190	1250
	15.0	-	160L	A	150	125	140	550	320	400	470	360	355	130	1400	1190	1250
	18.5	-	180M	A	150	125	140	550	320	400	470	360	355	130	1400	1190	1250
125-315	18.5	-	180M	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600
	22	-	180L	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600
	30	-	200L	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600
	37	-	225S	B	150	125	140	810	600	650	530	420	355	112	1750	1060	1600
125-400	37	-	225S	B	150	125	140	810	600	650	530	455	400	112	1750	1060	1600
	45	-	225M	B	150	125	140	810	600	650	530	455	400	112	1750	1060	1600
	55	-	250M	B	150	125	140	810	600	650	530	455	400	112	1750	1060	1600
	75	-	280S	B	150	125	140	880	670	720	530	455	400	112	1750	1060	1600
150-200	11.0	-	160M	B	200	150	160	880	670	720	470	420	400	112	1750	1060	1600
	15.0	-	160L	B	200	150	160	880	670	720	470	420	400	112	1750	1060	1600
150-250	15.0	-	160L	B	200	150	160	810	600	650	470	420	400	112	1750	1060	1600
	18.5	-	180M	B	200	150	160	810	600	650	470	420	400	112	1750	1060	1600
	22.0	-	180L	B	200	150	160	810	600	650	470	420	400	112	1750	1060	1600
	30.0	-	200L	B	200	150	160	810	600	650	470	420	400	112	1750	1060	1600
150-315	22	-	180L	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600
	30	-	200L	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600
	37	-	225S	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600
	45	-	225M	B	200	150	160	880	670	720	530	420	400	112	1750	1060	1600
150-400	45	-	225M	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600
	55	-	250M	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600
	75	-	280S	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600
	90	-	280M	B	200	150	160	880	670	720	530	455	450	112	1750	1060	1600

	DN 80, 100, 125, 150		DN 200
Trianorm G, M	EN 1092-2/DN../PN 16/21/JL 1040/B	Trianorm G, M	EN 1092-2/DN 200/PN 10/21/JL 1040/B

		Trianorm G, M	
		80-315, 80-400	100-160 - 150-400
1 M	Druckmessgerät-Anschluss / Pressure measuring instrument connection / Indicateur de pression / Manometro / Aparato manometrico / Manometer	Rc ³ / ₈ ¹⁾	Rc ¹ / ₂ ¹⁾
6 B	Förderflüssigkeit-Entleerung / Casing drain / Vidange du liquide véhiculé / Scarico del liquido convogliato / Vaciado del líquido de impulsión / aftap, pomphuis	Rc ³ / ₈ ¹⁾	Rc ¹ / ₂ ¹⁾
6 D	Förderflüssigkeit-Auffüllen und Entlüften / Fluid handled-priming and venting / Remplissage et dégazage de liquide véhiculé / Riempimento e scarico del liquido convogliato / Llenado y desaireación del líquido de impulsión / vul en ontlichting	Rc ³ / ₈ ¹⁾	Rc ¹ / ₂ ¹⁾
8 B	Leckflüssigkeit-Ablass / Leakage drain / Vidange liquide de fuite / Uscita del liquido di fuga / Salida del líquido de fugas / lekvloeistof afvoer	G ¹ / ₂ ²⁾	G ¹ / ₂ ²⁾

1) Rc = ISO 7/1

2) G = ISO 228/1

Interchangeability of Pump Components

Trianorm	Shaft units	Description											
		Volute casing	Discharge cover gland packing	Discharge cover mechanical seal	Shaft	Impeller	Deep-groove ball bearing	Mechanical seal	Gland packing	Casing wear ring suction side	Casing wear ring discharge side	Shaft sleeve	Shaft protecting sleeve
		Part No.	102	163.1	163.2	210	230	321	433	461	502.1	502.2	523
32-125.1	25	○	1	12	1	○	1	1	1	1	X	1	1
32-160.1	25	○	1	12	1	1	1	1	1	1	3	1	1
32-200.1	25	○	4	15	1	2	1	1	1	1	3	1	1
32-250.1	25	○	6	17	1	3	1	1	1	1	4	1	1
32-125	25	○	1	12	1	○	1	1	1	1	X	1	1
32-160	25	○	1	12	1	1	1	1	1	1	3	1	1
32-200	25	○	4	15	1	2	1	1	1	1	3	1	1
32-250	25	○	6	17	1	3	1	1	1	1	4	1	1
40-125	25	○	1	12	1	○	1	1	1	2	X	1	1
40-160	25	○	1	12	1	○	1	1	1	2	3	1	1
40-200	25	○	4	15	1	○	1	1	1	○	3	1	1
40-250	25	○	6	17	1	○	1	1	1	2	4	1	1
40-315	35	○	○	○	2	○	2	2	2	2	13	2	2
50-125	25	○	1	12	1	○	1	1	1	3	3	1	1
50-160	25	○	1	12	1	○	1	1	1	3	3	1	1
50-200	25	○	4	15	1	○	1	1	1	3	3	1	1
50-250	25	○	6	17	1	○	1	1	1	3	4	1	1
50-315	35	○	9	20	2	○	2	2	2	5	10	2	2
65-125	25	○	1	12	1	○	1	1	1	5	3	1	1
65-160	25	○	2	13	1	○	1	1	1	5	9	1	1
65-200	25	○	○	○	1	○	1	1	1	5	9	1	1
65-250	35	○	○	○	2	○	2	2	2	9	13	2	2
65-315	35	○	9	20	2	○	2	2	2	9	10	2	2
80-160	25	○	2	13	1	○	1	1	1	6	9	1	1
80-200	35	○	3	14	2	○	2	2	2	6	10	2	2
80-250	35	○	7	18	2	○	2	2	2	6	10	2	2
80-315	35	○	9	20	2	○	2	2	2	6	10	2	2
80-400	55	○	11	22	3	○	3	3	3	10	8	3	3
100-160	35	○	3	14	2	○	2	2	2	7	10	2	2
100-200	35	○	3	14	2	○	2	2	2	7	10	2	2
100-250	35	○	7	18	2	○	2	2	2	7	10	2	2
100-315	35	○	9	20	2	○	2	2	2	7	10	2	2
100-400	55	○	11	22	3	○	3	3	3	7	8	3	3
125-200	35	○	5	16	2	○	2	2	2	8	11	2	2
125-250	35	○	8	19	2	○	2	2	2	8	14	2	2
125-315	55	○	10	21	3	○	3	3	3	8	8	3	3
125-400	55	○	11	22	3	○	3	3	3	8	8	3	3
150-200	35	○	5	16	2	○	2	2	2	○	11	2	2
150-250	35	○	8	19	2	○	2	2	2	12	14	2	2
150-315	55	○	10	21	3	○	3	3	3	12	8	3	3
150-400	55	○	11	22	3	○	3	3	3	12	8	3	3

1	Same number means	○	Components differ	X	Components not fitted
1	same component				

Recommended Spare Parts Stock for 2 Years' Continuous Operation as per DIN 24 296

Part No.	Description	Number of pumps (including stand-by pumps)							
		2	3	4	5	6 and 7	8 and 9	10 and more	
Pumps with mechanical seals:		Quantity of spare parts							
210	Shaft	1	1	1	2	2	2	20 %	
230	Impeller (including Casing wear ring 502.2)	1	1	1	2	2	2	20 %	
321	Deep-groove ball bearing	2	2	4	4	6	8	100 %	
330	Bearing bracket	-	-	-	-	-	1	2 off	
412	O-ring	4	6	8	8	9	10	100 %	
433	Mechanical seal	1	1	2	2	2	3	25 %	
502.1/2	Casing wear ring	2	2	2	3	3	4	50 %	
523	Shaft sleeve	1	1	2	2	2	3	25 %	
---	Gaskets (set)	4	6	8	8	9	12	150 %	
---	Torque-transmitting coupling elements (set)	1	1	2	2	3	4	30 %	
Pump with gland packing									
461	Gland packing (set)	} instead of parts 412, 433, 523	4	4	6	6	6	8	100 %
524	Shaft protecting sleeve		2	2	2	3	3	4	50 %

