UP TO 350°C / 662°F THERMAL OIL
UP TO 190°C / 374°F HOT WATER

CombiTherm

CENTRIFUGAL PUMP FOR THERMAL OIL / HOT WATER APPLICATIONS

System characteristics

The SPX Johnson Pump CombiTherm is developed especially for thermal oil (DIN 4754) and hot water applications EN 12953-6 (DIN 4752) (ratings and dimensions to EN 733 (DIN 24255)). CombiTherm ensures uniform process temperatures while keeping damaging heat away from seal faces and bearings. CombiTherm is designed to require no external cooling when working within the given parameters. The throttle bush, journal bearing and seal placement reduce circulation and temperature along the pump length. This greatly reduces the temperature at the seal face and bearings.

Applications

The CombiTherm is developed especially for thermal oil and hot water applications: Thermal oil circulation and Heat transfer; Bitumen for roads and roofing; Chemical, agitators, reactors, drying plants, polymerisation; Rubber and plastics, injection moulding, PVC tape; Food, ovens, fish frying, distillation of fatty acids and glycerine, fat softening, potato chips, milk powder plants; Paper, calendar rolls, cardboard. washing machines and driers; High temperature hot water circulation, hospitals, heating systems.

Technical data

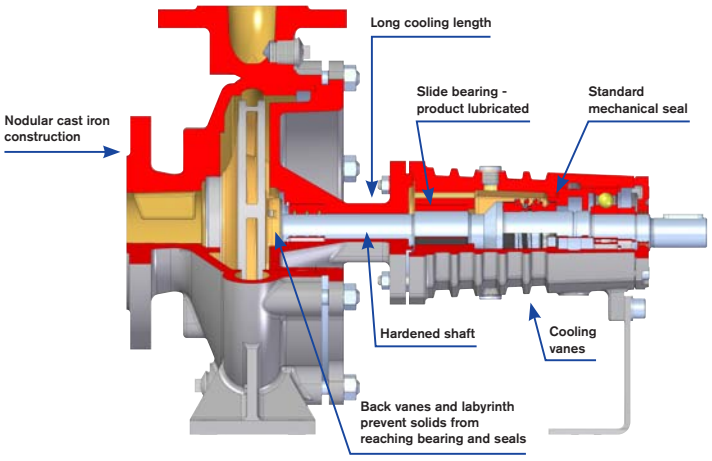
Maximum capacity:	350 m^3/h (50 Hz) 400 m^3/h (60 Hz)
Maximum delivery head:	110 m (50 Hz) 160 m (60 Hz)
Maximum liquid temprature:	Thermal oil 350° C, Hot water 190° C
Maximum operating pressure:	16 bar
Maximum speed:	3600 rpm

MATERIAL	
PUMP CASING	NODULAR CAST IRON
IMPELLER	CAST IRON OR STAINLESS STEEL
MECHANICAL SEAL COVER	NODULAR CAST IRON
PUMP SHAFT	17% CHROME STEEL
MECHANICAL SEAL MATERIAL	CARBON TO CERAMIC



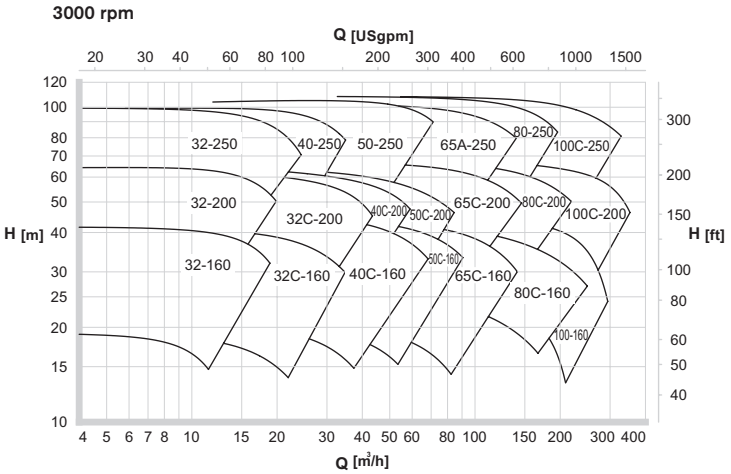
Pump specifics

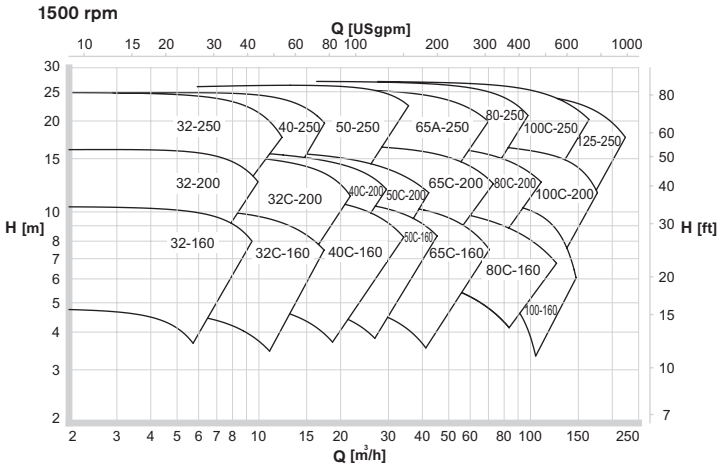
- Nodular cast iron construction
- Long cooling length displacing seal away from the pumped liquid
- Back vanes and labyrinth prevent solids from reaching bearing and seals
- Product lubricated slide bearing
- Standard mechanical seal



Johnson Pump®

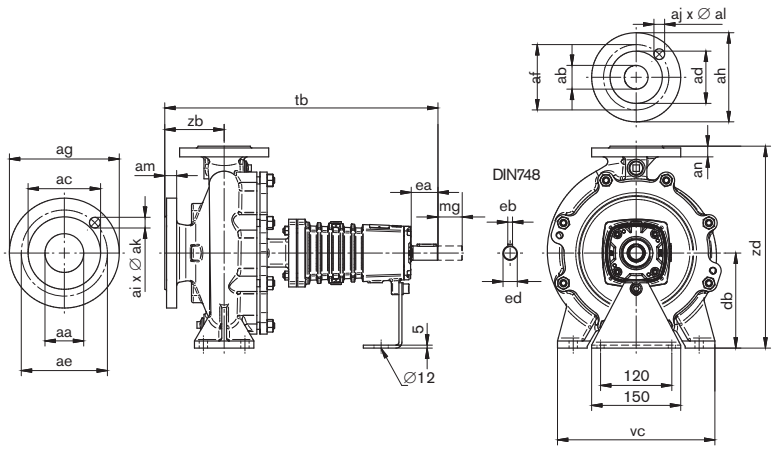
Performance data





Dimensions

CAD dimensional drawings available on request.



measurements in mm unless specified otherwise

CT	aa	ab	db	ea	eb	ed	mg	tb	vc	zb	zd	[KG]
32(C)-160	50	32	132	45	8	24	100	440	240	80	292	35
32(C)-200	50	32	160	45	8	24	100	440	240	80	340	40
32-250	50	32	180	45	8	24	100	460	320	100	405	61
40C-160	65	40	132	45	8	24	100	440	240	80	292	37
40C-200	65	40	160	45	8	24	100	460	265	100	340	44
40-250	65	40	180	45	8	24	100	460	320	100	405	53
50C-160	65	50	160	45	8	24	100	460	265	100	340	40
50C-200	65	50	160	45	8	24	100	460	265	100	360	45
50C-250	65	50	180	45	8	24	100	460	320	100	405	56
65C-160	80	65	160	45	8	24	100	460	280	100	360	45
65C-200	80	65	180	45	8	24	140	460	320	100	405	52
65A-250	80	65	200	75	10	32	140	570	360	100	450	80
80C-160	100	80	180	45	8	24	140	485	320	125	405	53
80C-200	100	80	180	75	10	32	140	595	345	125	430	72
80C-250	100	80	200	75	10	32	140	595	400	125	480	86
100-160	125	100	200	75	10	32	100	595	360	125	515	88
100C-200	125	100	200	75	10	32	140	595	360	125	480	99
100C-250	125	100	225	75	10	32	140	610	400	140	505	97
125-250	150	125	250	75	10	32	140	610	400	140	605	123

FLANGES ACCORDING TO ISO 7005 PN16 ≅ EN1092-2

aa	ab	ac	ad	ae	af	ag	ah	ai x ak	aj x al	am	an
50	32	102	78	125	100	165	140	4 X 18	4 X 18	20	18
65	40	122	88	145	110	185	150	4 X 18	4 X 18	20	18
65	50	122	102	145	125	185	165	4 X 18	4 X 18	20	20
80	65	138	122	160	145	200	185	4 X 18	4 X 18	22	20
100	80	158	138	180	160	220	200	8 X 18	8 X 18	22	22
125	100	188	158	210	180	250	220	8 X 18	8 X 18	24	22
150	125	212	188	240	210	285	250	8 X 23	8 X 18	24	24

FLANGES ACC.TO ISO 7005 PN16/ ASME B16.5 150 LBS DRILLED (ANSI 150LBS)

aa*	ab*	ac*	ad*	ae*	af*	ag*	ah*	ai x ak*	aj x al*	am*	an*
1.97	1.26	3.62	2.50	4.75	3.50	6.50	5.51	4 X ¾	4 X ⅝	0.79	0.71
2.56	1.57	4.12	2.88	5.50	3.88	7.28	5.91	4 X ¾	4 X ⅝	0.79	0.71
2.56	1.97	4.12	3.62	5.50	4.75	7.28	6.50	4 X ¾	4 X ¾	0.79	0.79
3.15	2.56	5.00	4.12	6.00	5.50	7.87	7.28	4 X ¾	4 X ¾	0.87	0.79
3.94	3.15	6.19	5.00	7.50	6.00	8.66	7.87	8 X ¾	4 X ¾	0.87	0.87
4.92	3.94	7.31	6.19	8.50	7.50	9.84	8.66	8 X ⅞	8 X ¾	0.94	0.87
5.91	4.92	8.50	7.31	9.50	8.50	11.22	9.84	8 X ⅞	8 X ¾	0.94	0.94

*inches

NB! ASME flanges available only in the Americas and the Asian/Pacific areas

SPX FLOW TECHNOLOGY ASSEN B.V.

Dr. A.F. Philipsweg 51, 9403 AD Assen P.O. Box 9, 9400 AA Assen, THE NETHERLANDS

P: +31 (0)592 37 67 67 F: +31 (0)592 37 67 60 E: johnson-pump.nl.support@spx.com

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.spx.com and www.johnson-pump.com.

SPX Corporation reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing.

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