

BREAK THROUGH TECHNOLOGY THAT BREAKS ALL BARRIERS



END SUCTION CENTRIFUGAL PUMPS - 50Hz

INDEX

TEH SERIES - END SUCTION CENTRIFUGAL PUMPS

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TEM SERIES - END SUCTION CENTRIFUGAL MIXED FLOW PUMPS

General Information

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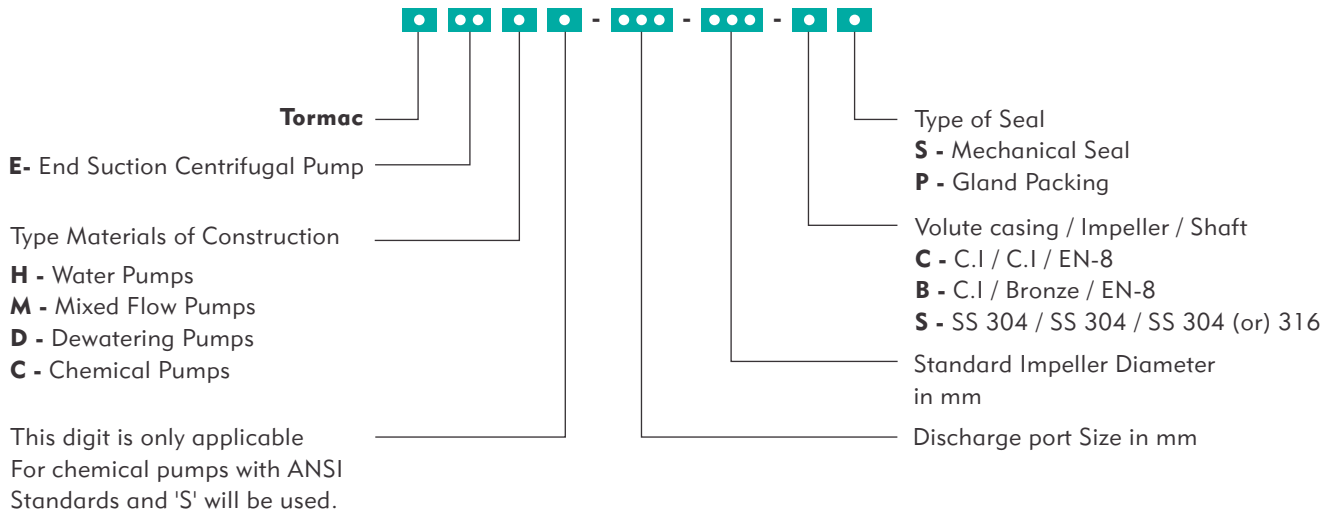
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GENERAL DATA

Model Classification > END SUCTION CENTRIFUGAL PUMPS



GENERAL DATA

END SUCTION CENTRIFUGAL PUMPS

Construction

Tormac End suction pumps with volute casing ND16 DIN 2532/2533 single stage end suction with bearing housing, Dimensions in accordance with DIN 24255. End suction pumps are single stage centrifugal, non-self priming, volute pumps. These pumps features horizontal shaft components with axial suction and impellers and radial discharge ports. Pumps volute chamber and impellers are carefully designed to give the best possible and suction lift characteristics.

Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw material, dynamically balanced impellers, seal and bearings to ensure long life.



Applications

- Water supply
- Irrigation
- Pressure boosting
- Fire protection
- Heating and air conditioning systems
- Circulation and transfer of clean, chemically non-aggressive water & liquids
- General industrial services
- Water supply to swimming pool, fountains.

Features

- Designed to allow interchangeability of their component between all individual pump sizes.
- Minimizes shaft deflection maximizes bearing and mechanical seal life.
- Heavy duty bearing ensures long life.
- Back pull out design facilitates dismantling the pump without disconnecting the pump casing from the pipes.
- Dimensions and characteristics according to DIN 24255 standards (On request - ISO 2858 standards pumps can be supplied).
- Available both in mechanical seal and soft packed stuffing box design.

GENERAL DATA

Operating Limits

Outlet size range	DN32 to DN150mm
Flow range	Upto 550 m ³ /h
Total Head range	Upto 100m
Operating temperature with soft packed stuffing box	90°C
Operating temperature with mechanical seal	90°C
Maximum working pressure	16bar

Materials of Construction

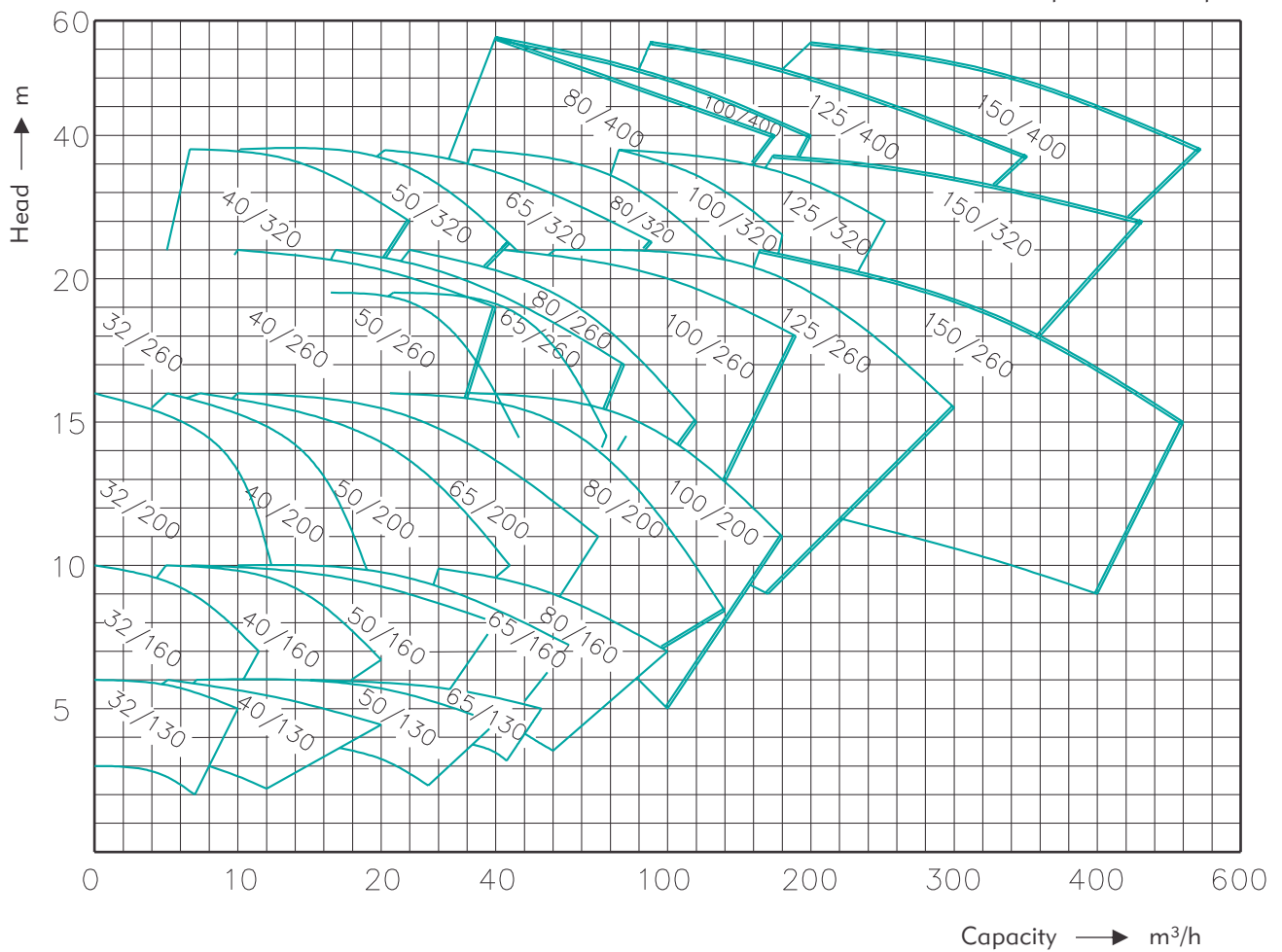
Pump Parts	Type - C	Type - B	Type - S
Pump casing	Cast iron	Cast iron	SS 304
Impellers	Cast iron	Zinc Free Bronze	SS 304
Shaft	EN - 8	EN - 8	SS 304 / 316
Sleeve	SS 410	SS 410	SS 410

* On request we can supply SS 410, SS 316 Pump Shaft & Zinc Free Bronze Wearing Ring also.

GENERAL DATA

Quick Selection

Speed : 1450 rpm

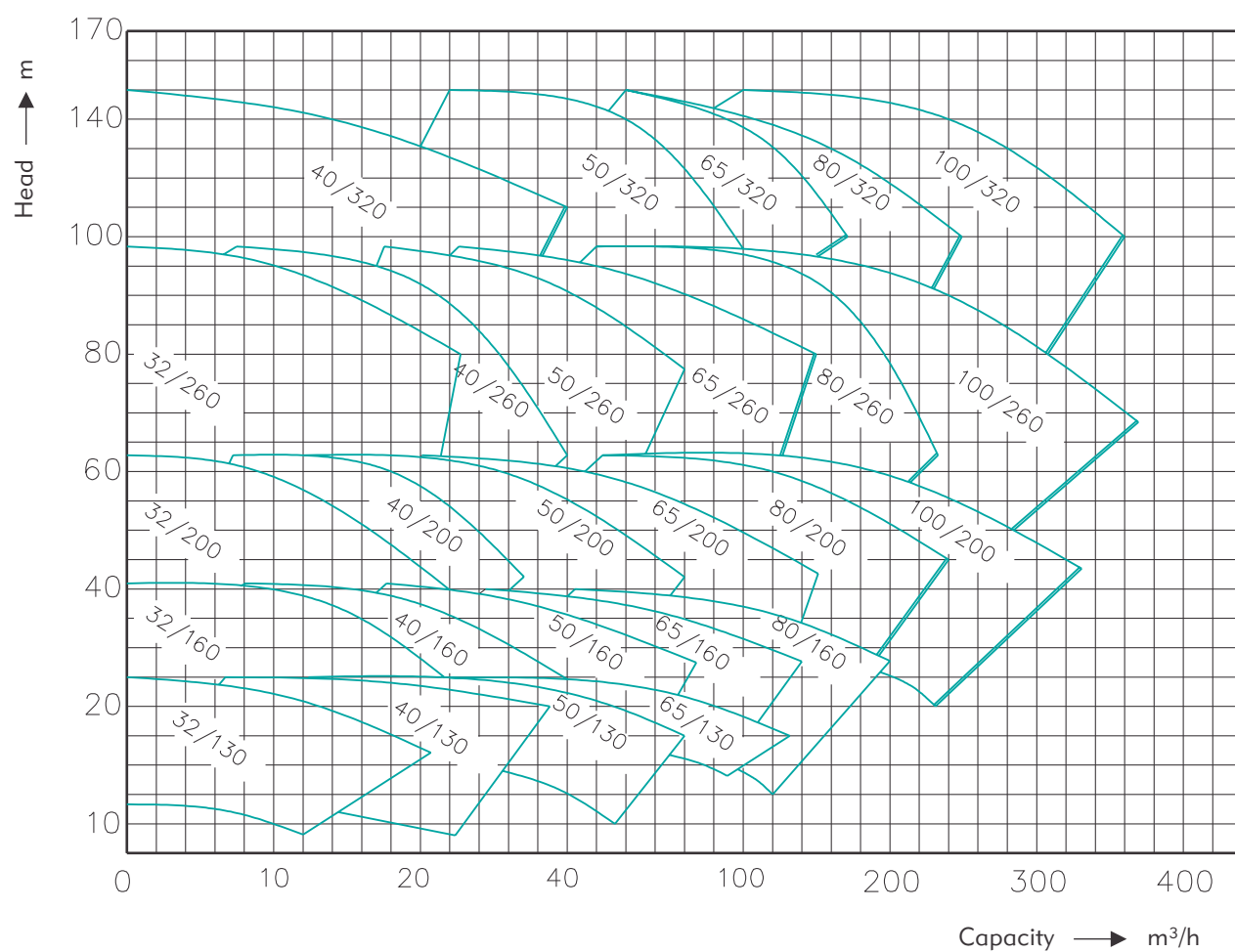


Note :- Pump with impeller OD above 260mm at 2900 rpm not recommended. On specific demand, pump can be supplied with the strengthened shaft and bearing to run at 2900 rpm.

GENERAL DATA

Quick Selection

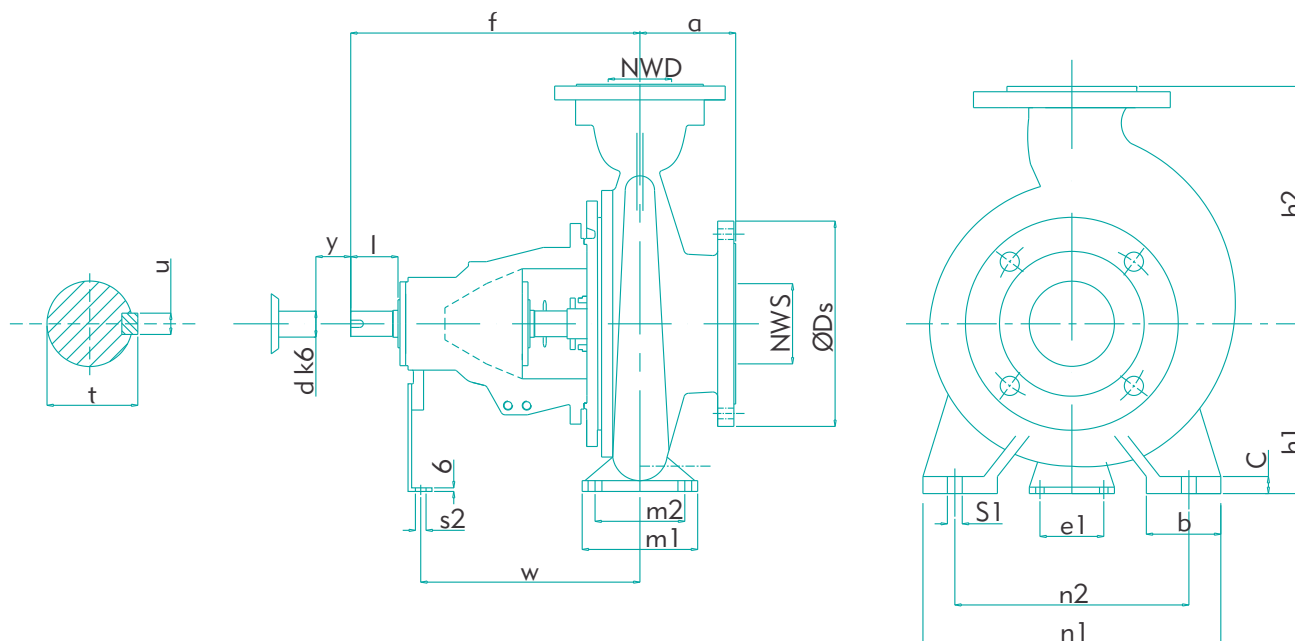
Speed : 2900 rpm



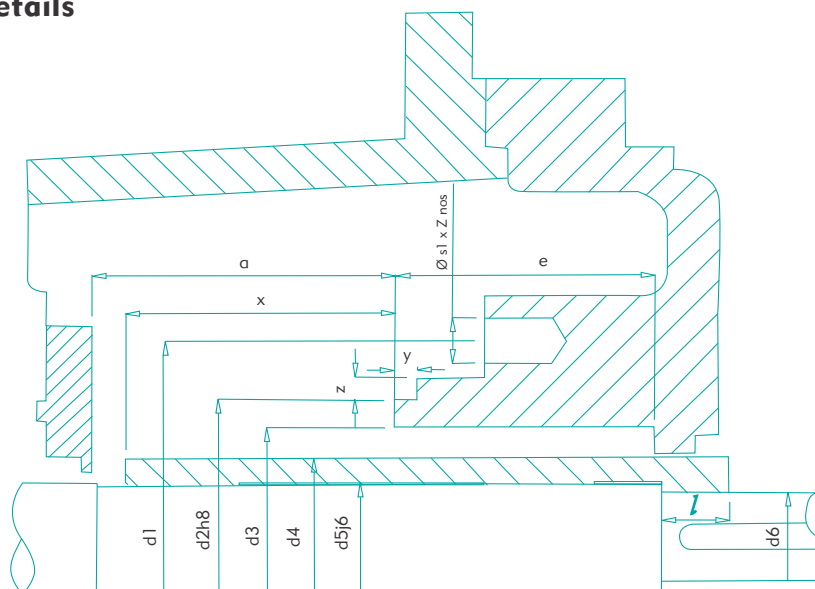
The Company reserves the right to modify the technical specifications and illustrations without prior notice.

GENERAL DATA

Dimensional Drawing



Stuffing Box Details



BEARING UNIT	a	e	d1	z x s1	d2	d3	d4 mm-in	d5	d6	l
15 H	56	51	85	4XM10	62	48	32	24	20	14
18 H	70	64	100	4XM12	76	60	40	32	28	17
22H	80	64	110	4XM12	86	70	50	43	38	17

All Dimensions are in mm

GENERAL DATA

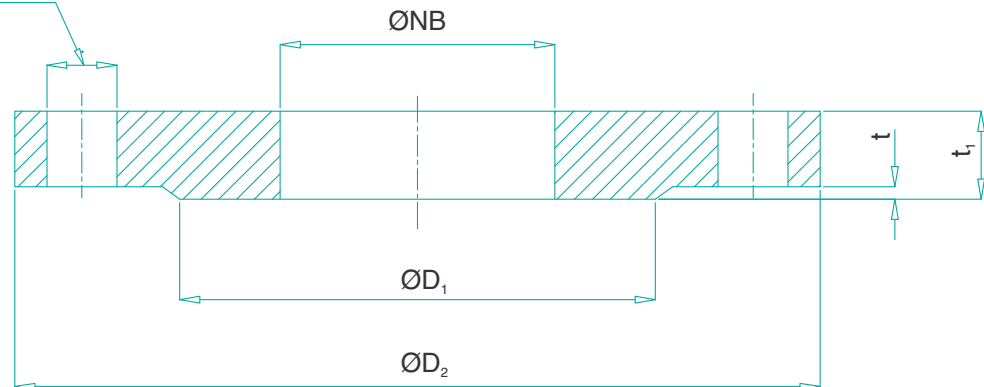
Dimension Data

PUMP SIZE	SHAFT SIZE	PUMP DIMENSION															SHAFT END					DISTANCE y	Pump Weight (kg)
		NWD	NWS	a	f	h1	h2	b	c	m1	m2	n1	n2	s1	e1	s2	w	d	l	t	u		
32/130	15W	32	50	80	360	112	140	50	14	100	70	190	140	14	100	14	267	24	50	27	8	140	45
32/160	15W	32	50	80	360	132	160	50	14	100	70	240	190	14	100	14	267	24	50	27	8	140	50
32/200	15W	32	50	80	360	160	180	50	14	100	70	240	190	14	110	14	267	24	50	27	8	140	60
32/260	15W	32	50	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	140	74
40/130	15W	40	65	80	360	112	140	50	14	100	70	210	160	14	100	14	267	24	50	27	8	140	50
40/160	15W	40	65	80	360	132	160	50	14	100	70	240	190	14	100	14	267	24	50	27	8	140	58
40/200	15W	40	65	100	360	160	180	50	14	100	70	265	212	14	110	14	267	24	50	27	8	140	66
40/260	15W	40	65	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	140	85
40/320	18W	40	65	125	470	200	250	65	14	125	95	345	280	14	110	14	342	32	80	35	10	140	-
50/130	15W	50	65	100	360	132	160	50	14	100	70	240	190	14	100	14	267	24	50	27	8	140	60
50/160	15W	50	65	100	360	160	180	50	14	100	70	265	212	14	110	14	267	24	50	27	8	140	61
50/200	15W	50	65	100	360	160	200	50	14	100	70	265	212	14	110	14	267	24	50	27	8	140	68
50/260	15W	50	65	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	140	89
50/320	18W	50	80	125	470	225	280	65	14	125	95	345	280	14	110	14	342	32	80	35	10	140	-
65/130	15W	65	80	100	360	160	180	65	14	125	95	280	212	14	110	14	267	24	50	27	8	140	65
65/160	15W	65	80	100	360	160	200	65	14	125	95	280	212	14	110	14	267	24	50	27	8	140	69
65/200	15W	65	80	100	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	140	81
65/260	18W	65	100	100	470	200	250	80	16	160	120	360	280	18	110	14	342	32	80	35	10	140	107
65/320	18W	65	80	125	470	225	280	80	16	160	120	400	315	18	110	14	342	24	50	35	10	140	132
80/160	15W	80	100	125	360	180	225	65	14	125	95	320	250	14	110	14	267	24	50	27	8	140	79
80/200	18W	80	100	125	470	180	250	65	14	125	95	345	280	14	110	14	342	32	80	35	10	140	104
80/260	18W	80	100	125	470	200	280	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	122
80/320	18W	80	100	125	470	250	315	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	159
80/400	22W	80	125	140	530	280	355	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	-
100/200	18W	100	125	125	470	200	280	80	16	160	120	360	280	18	110	14	342	32	80	35	10	140	99
100/260	18W	100	125	140	470	225	280	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	130
100/320	18W	100	125	140	470	250	315	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	169
100/400	22W	100	125	140	530	280	355	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	221
125/260	18W	125	150	140	470	250	355	80	16	160	120	400	315	18	110	14	342	32	80	35	10	140	136
125/320	22W	125	150	140	530	280	355	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	197
125/400	22W	125	150	140	530	315	400	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	246
150/260	22W	150	200	160	530	280	400	100	18	200	150	500	400	23	110	14	370	42	110	45	12	140	197
150/320	22W	150	200	160	530	280	400	100	18	200	150	550	450	23	110	14	370	42	110	45	12	140	257
150/400	22W	150	200	160	530	315	450	100	18	200	150	550	450	23	110	14	370	42	110	45	12	140	300

GENERAL DATA

Flange Dimensions

Ød Holes 'n' Nos on 'P' PCD

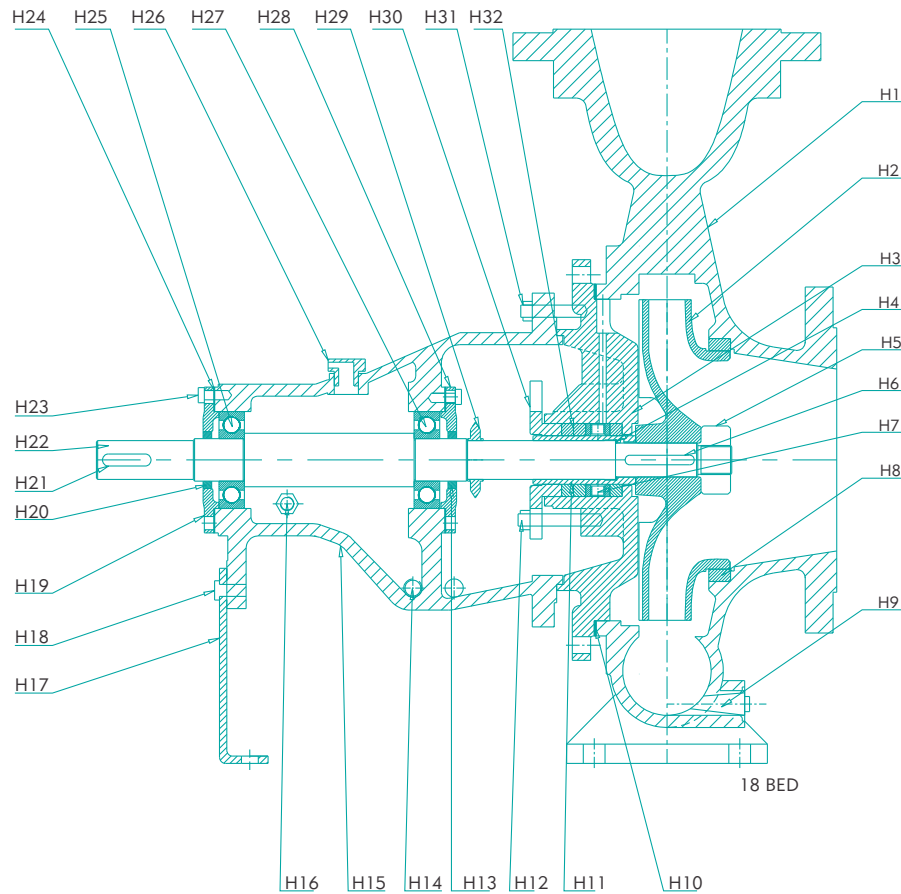


S.No.	ØNB	ØD ₁	ØD ₂	t	t ₁	Ød	n	P
01	25	68	115	2	16	14	4	85
02	32	78	140	2	18	18	4	100
03	40	88	150	3	18	18	4	110
04	50	102	165	3	20	18	4	125
05	65	122	185	3	20	18	4	145
06	80	138	200	3	22	18	8	160
07	100	158	220	3	24	18	8	180
08	125	188	250	3	26	18	8	210
09	150	212	285	3	26	22	8	240
10	200	268	340	3	30	22	12	295
11	250	320	405	3	32	26	12	355
12	300	378	460	4	32	26	12	410
13	350	438	520	4	36	26	16	470
14	400	490	580	4	38	30	16	525

All Dimensions are in mm.

GENERAL DATA

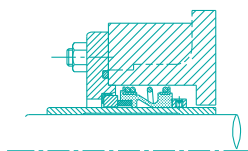
Cross Sectional Drawing



Alternative Types Of Shaft Seals



External flushing uncooled stuffing box
Stuffing box for external sealing
drilled inlet and outlet



With Mechanical seal

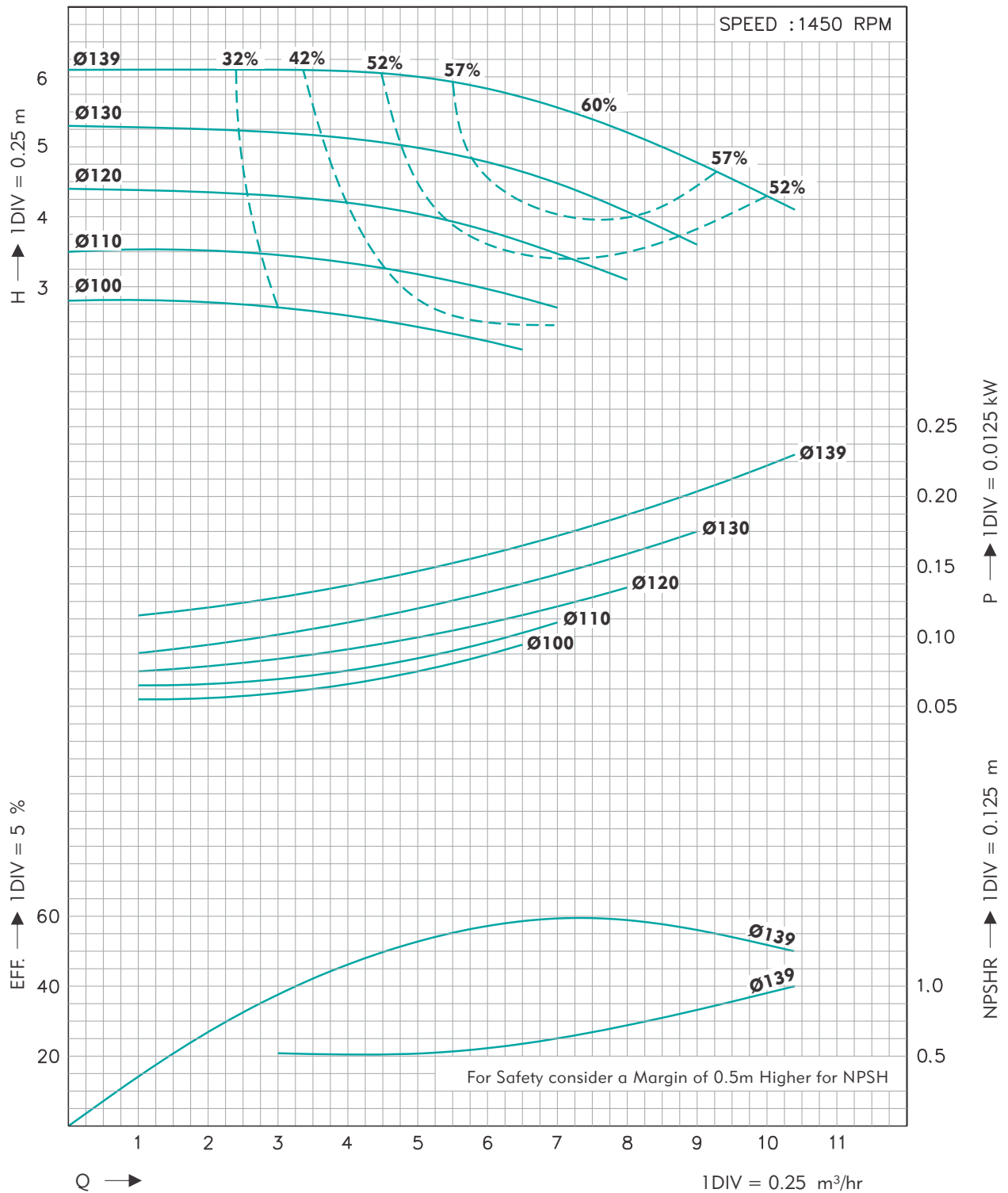
CODE NO	PART NAME	MATERIAL	QTY
H1	Pump Casing		1
H2	Impeller		1
H3	Stuffing Box		1
H4	Gasket (imp/sleeve)		1
H5	Impeller Nut		1
H6	Key Impeller	BS 970 EN8	1
H7	Lantern Ring		1
H8	Wear Ring		1
H9	Casing Plug (drain)		1
H10	Gaske (st.box/ Casing)		1
H11	Sleeve		1
H12	Stud (gland / S.box)		1
H13	Oil Seal (inner)		1
H14	Plug Oil Drain	BS 970 EN8	1
H15	Bearing Housing	IS 210 FG200	1
H16	Oil Level Side Glass	Aluminium	1
H17	Support Foot	IS 226 C15	1
H18	Bolt (support / Bed)		1
H19	Bearing Cover Outer	IS 210 FG200	1
H20	Oil Seal (outer)		1
H21	Key Coupling	BS 970 EN8	1
H22	Shaft		1
H23	Bolt (outer Cover / Bed)		1
H24	Gasket(outer Cover/bed)		1
H25	Bearing Coupling End	Steel	1
H26	Vent	PP	1
H27	Bearing Pump End	Steel	1
H28	Bearing Cover Inner	IS 210 FG200	1
H29	Deflector		1
H30	Gland		1
H31	Stud (bed /s.box)		1
H32	Gland Packing	Tiga / Ptfе	1 SET

The Company reserves the right to modify the technical specifications and illustrations without prior notice.

PERFORMANCE CURVES

Model : **TEH-32-130**

SIZE : **50 x 32**

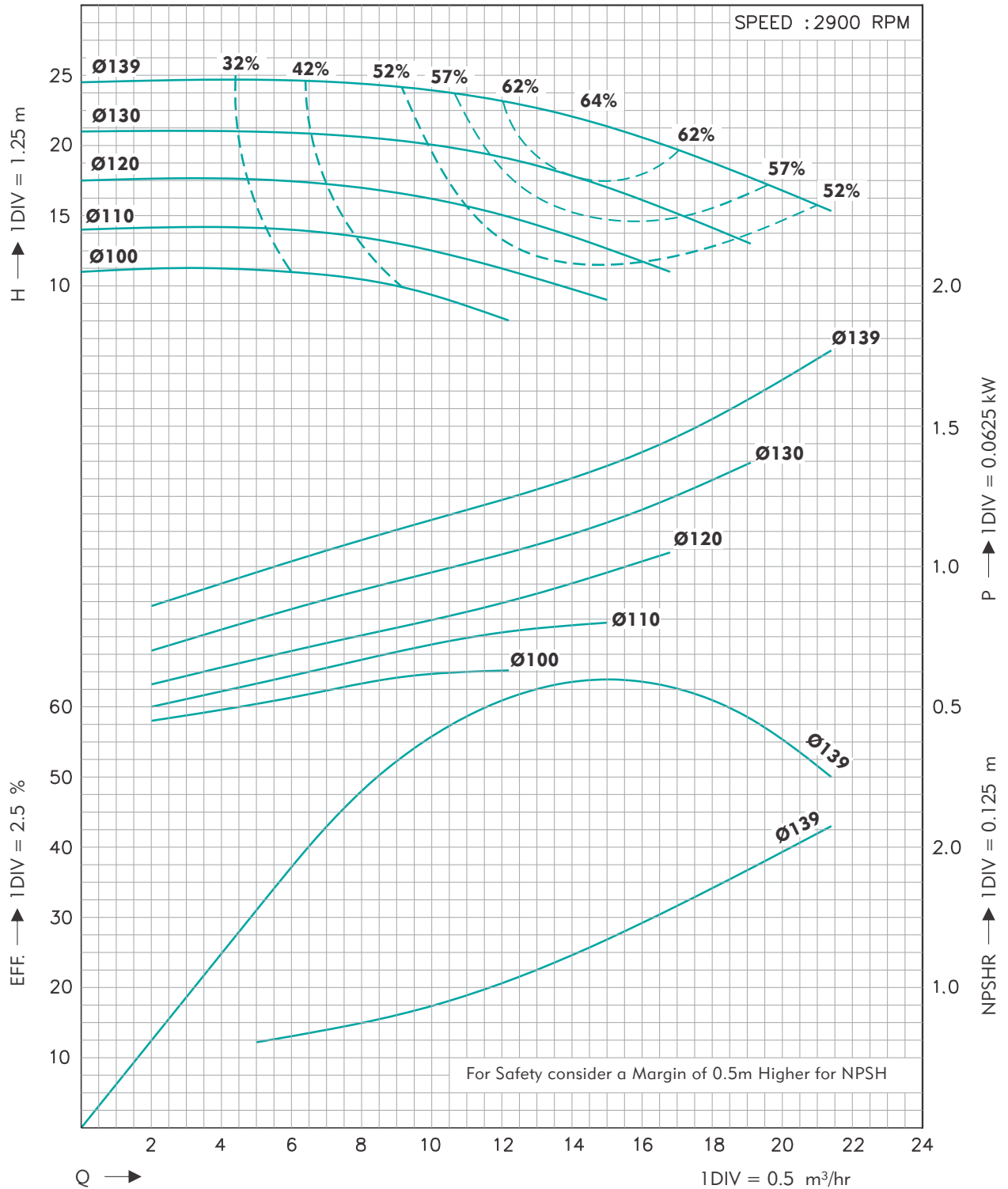


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-32-130**

SIZE : **50 x 32**

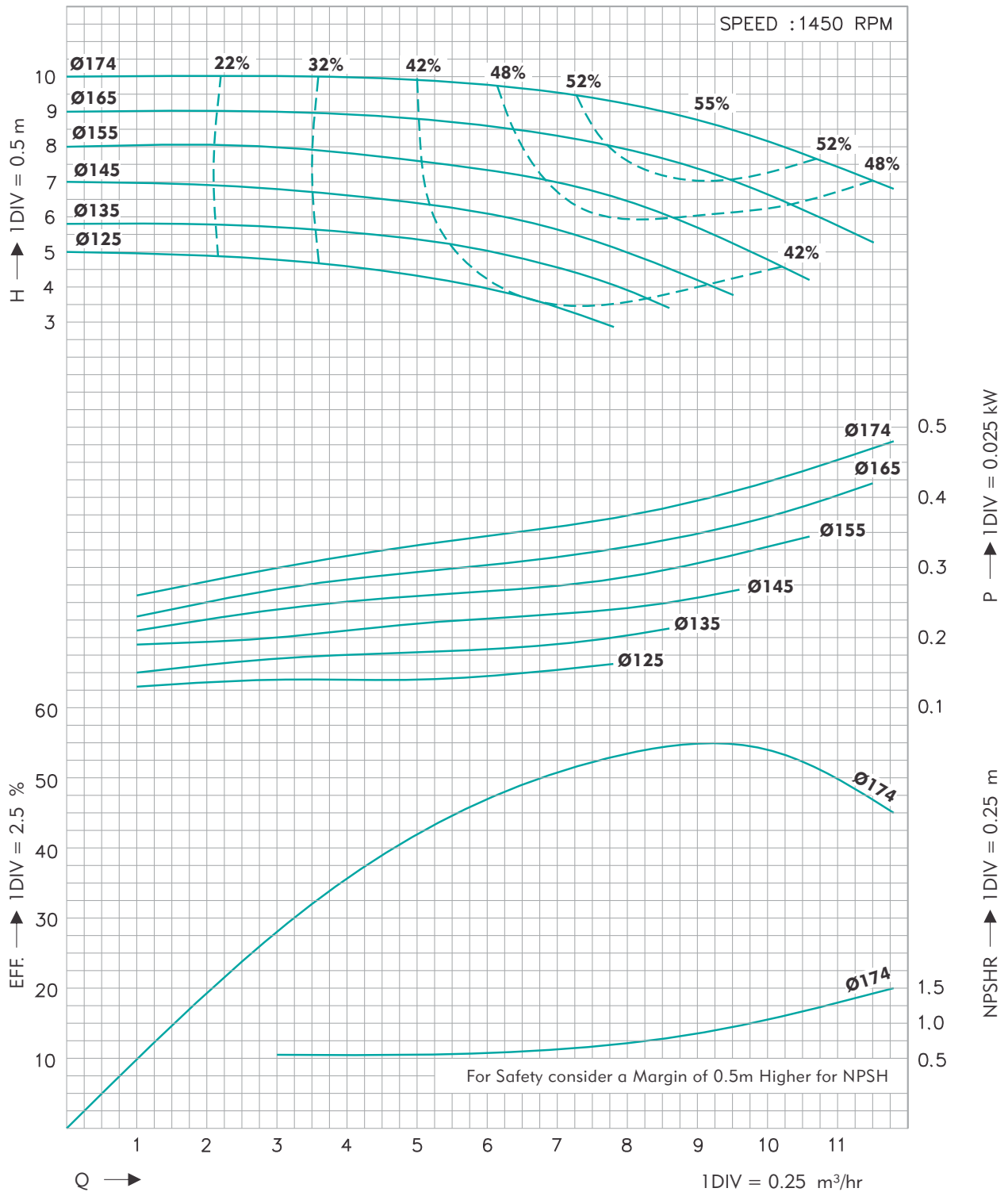


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-32-160**

SIZE : **50 x 32**

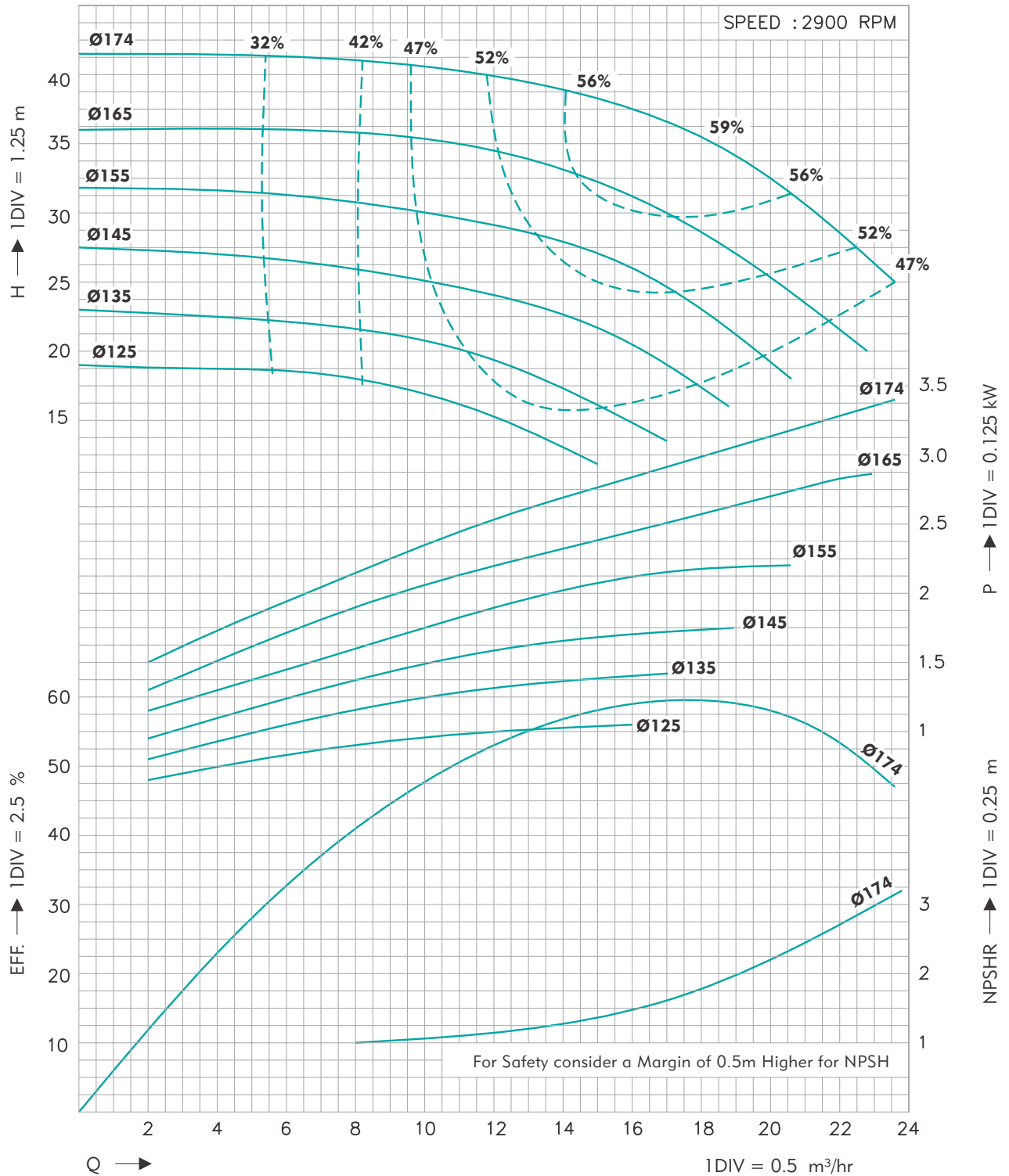


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-32-160**

SIZE : **50 x 32**

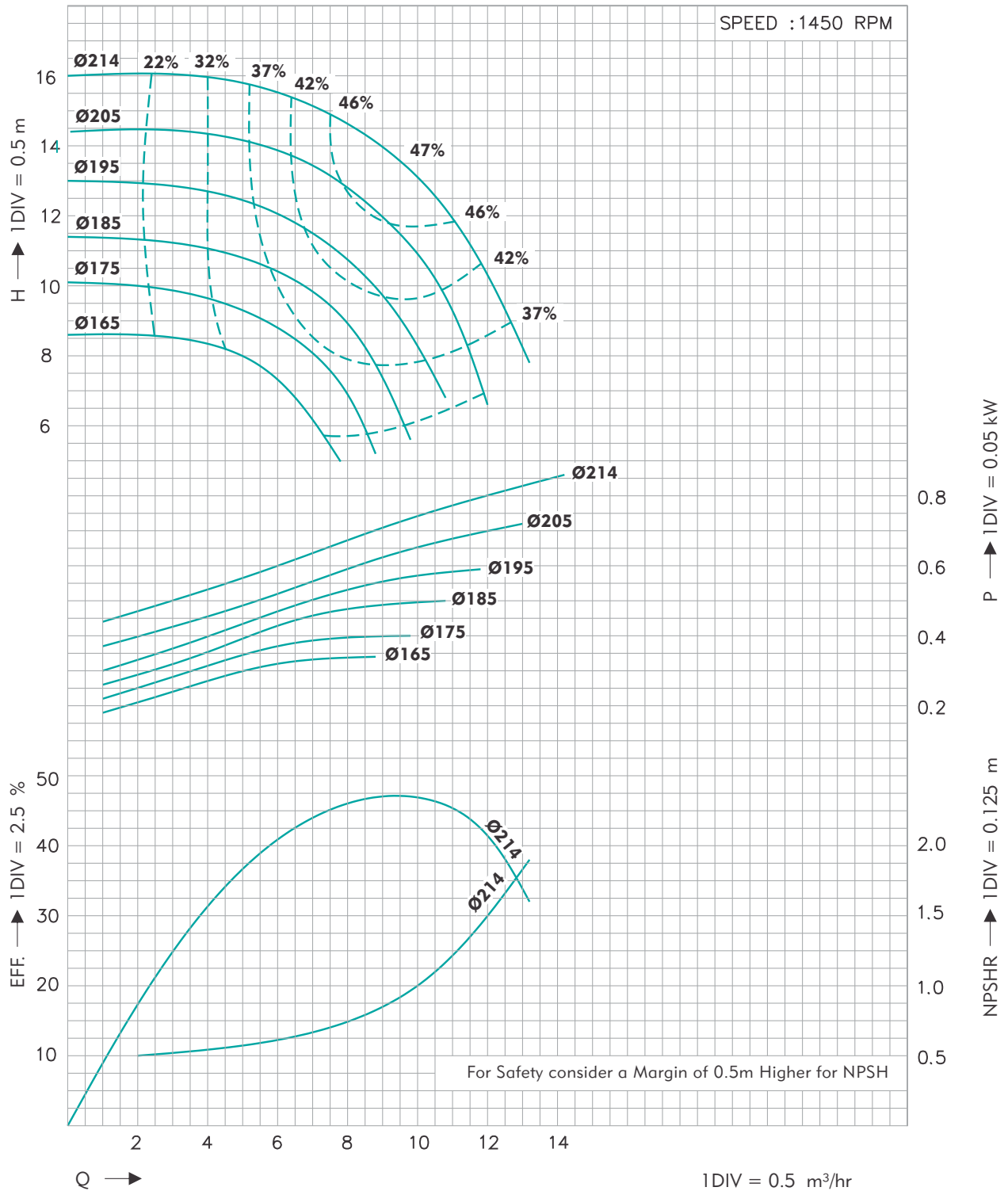


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-32-200**

SIZE : **50 x 32**

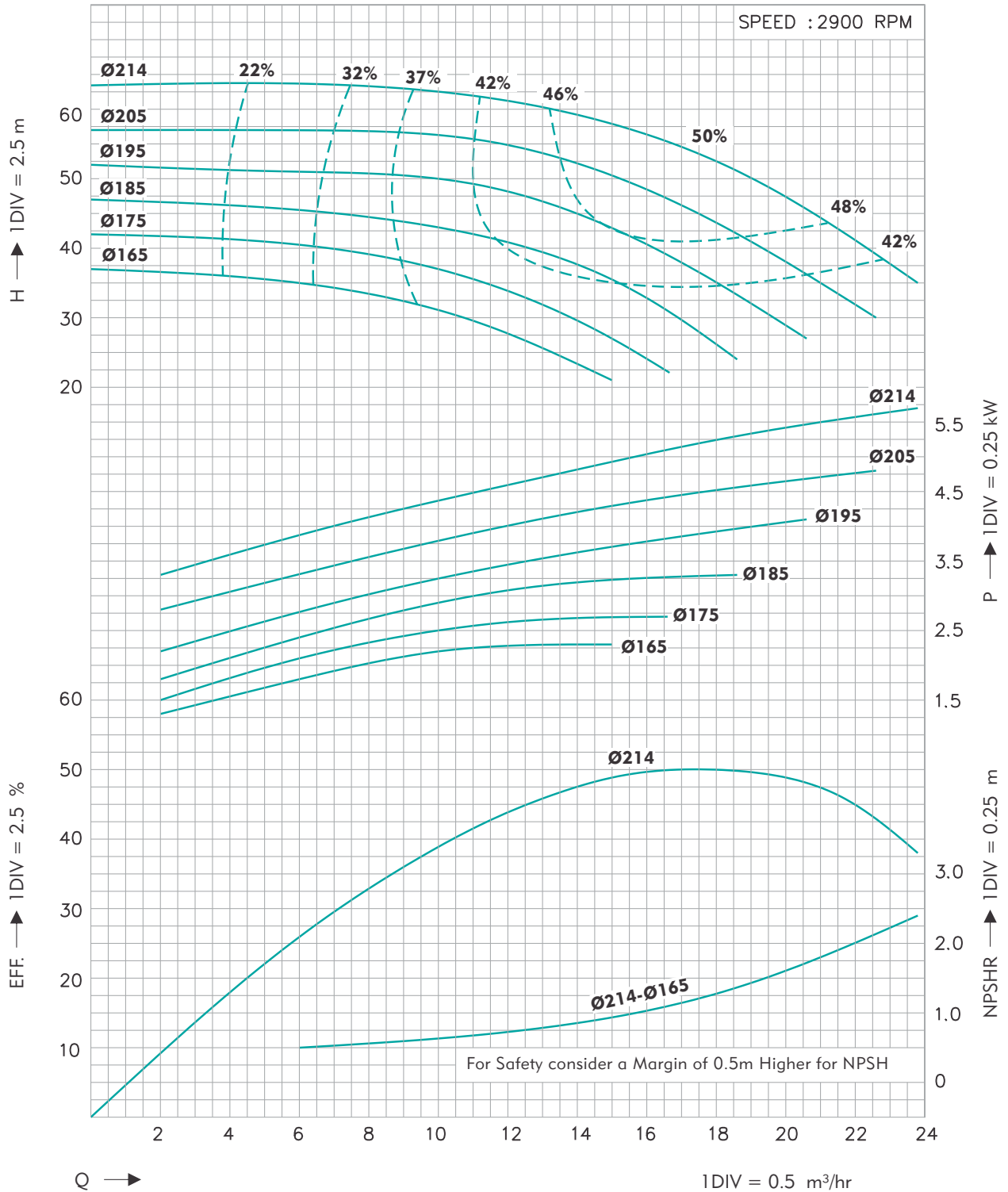


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-32-200**

SIZE : **50 x 32**

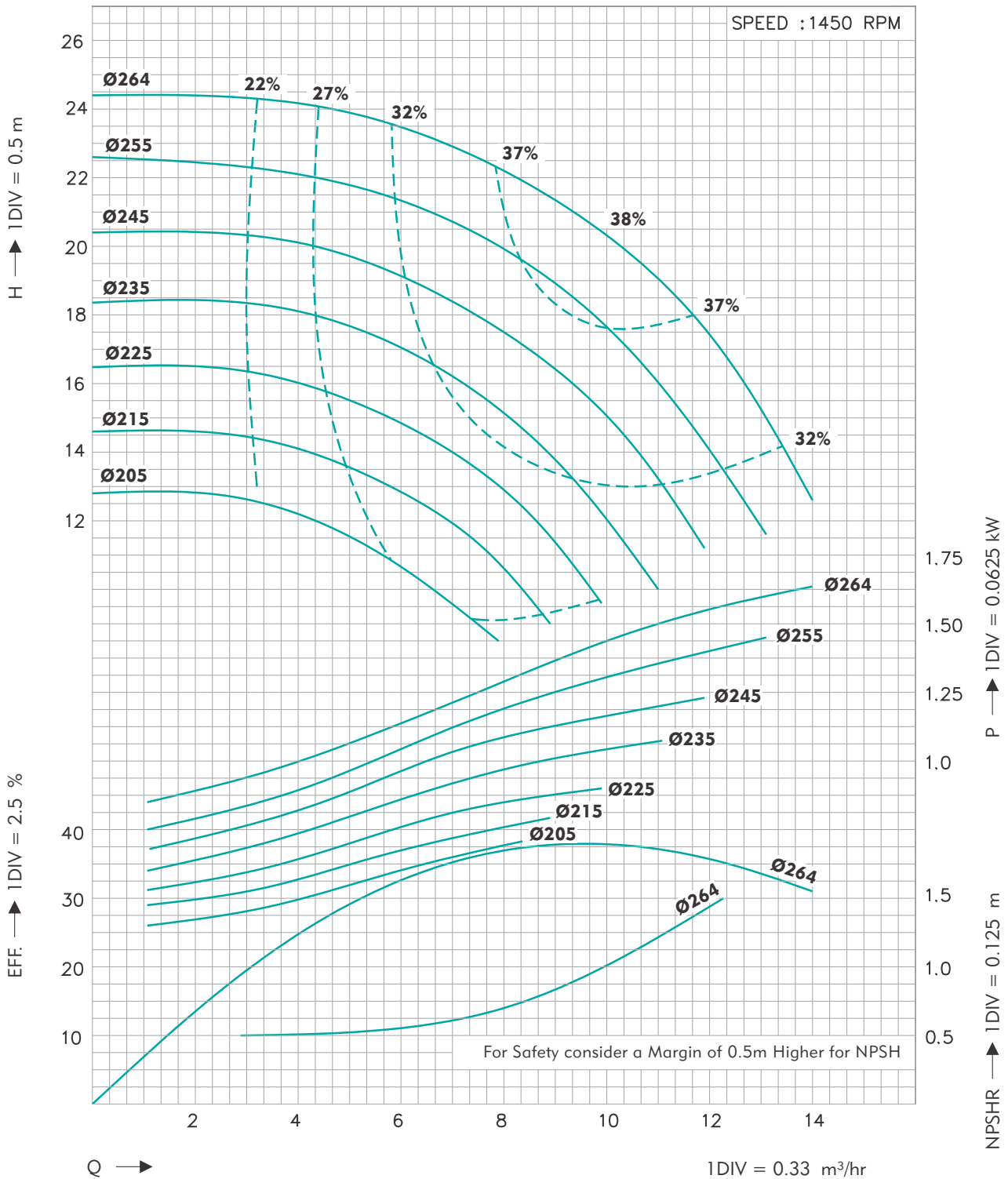


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-32-260**

SIZE : **50 x 32**

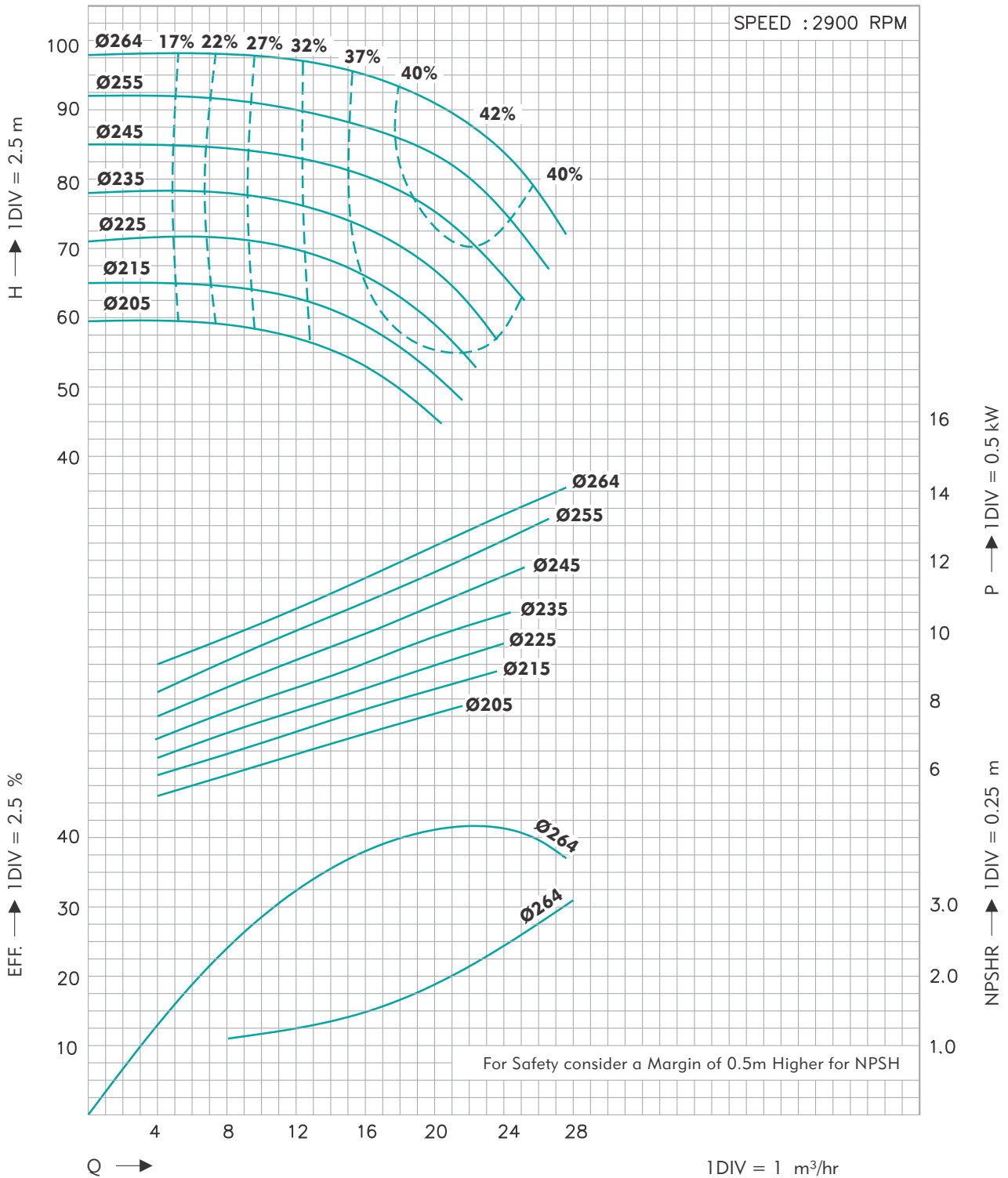


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-32-260**

SIZE : **50 x 32**

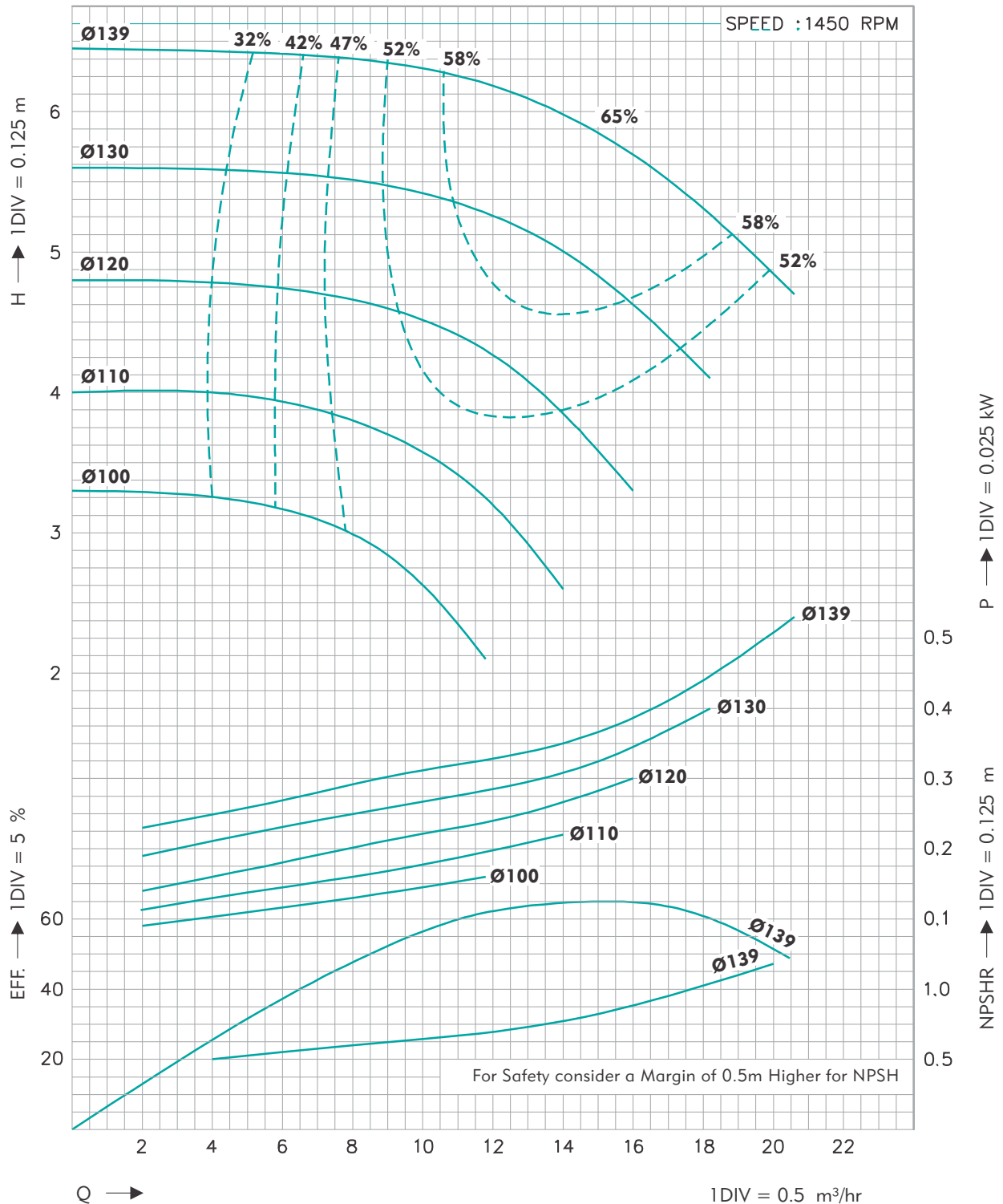


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-130**

SIZE : **65 x 40**

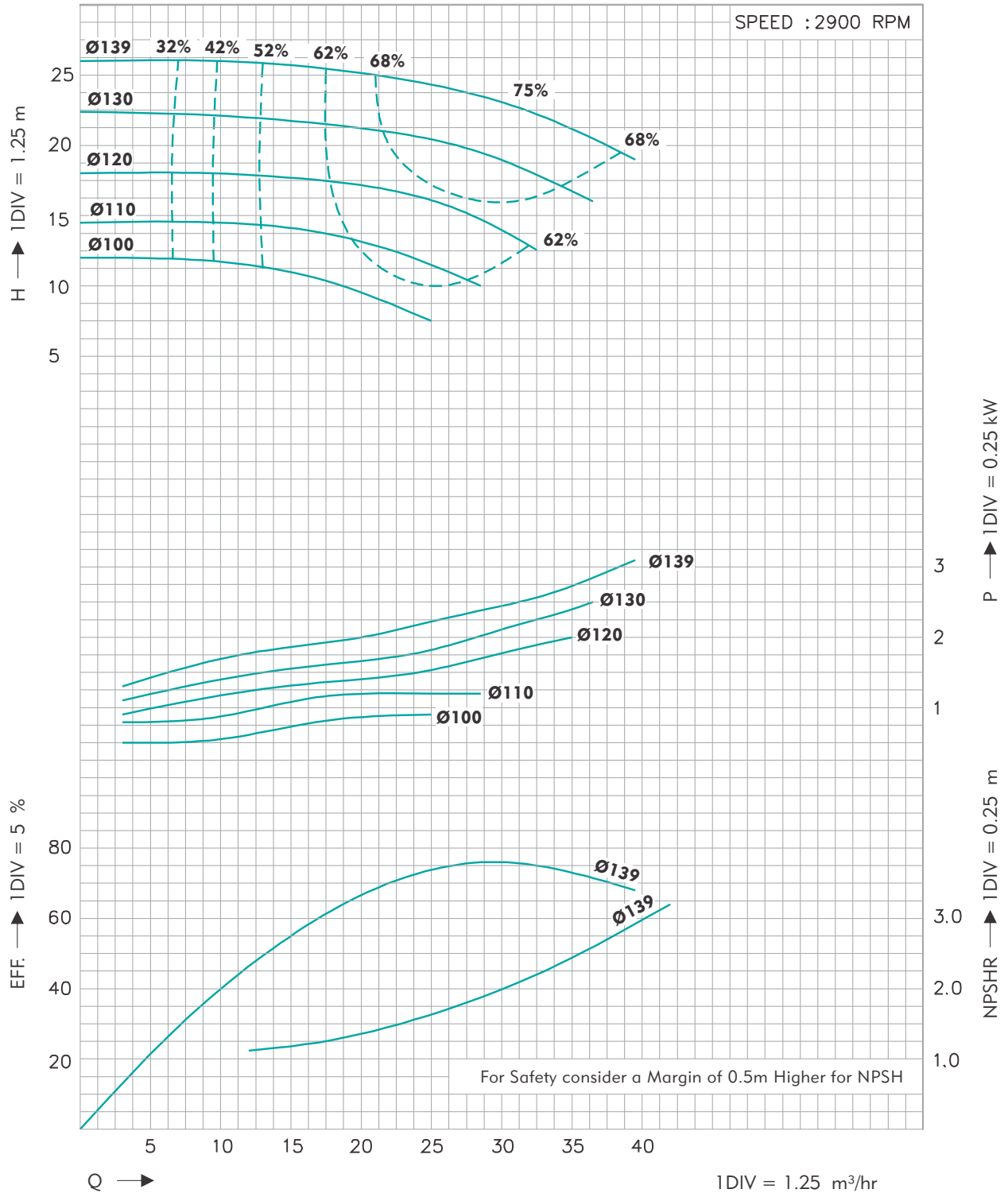


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-130**

SIZE : **65 x 40**

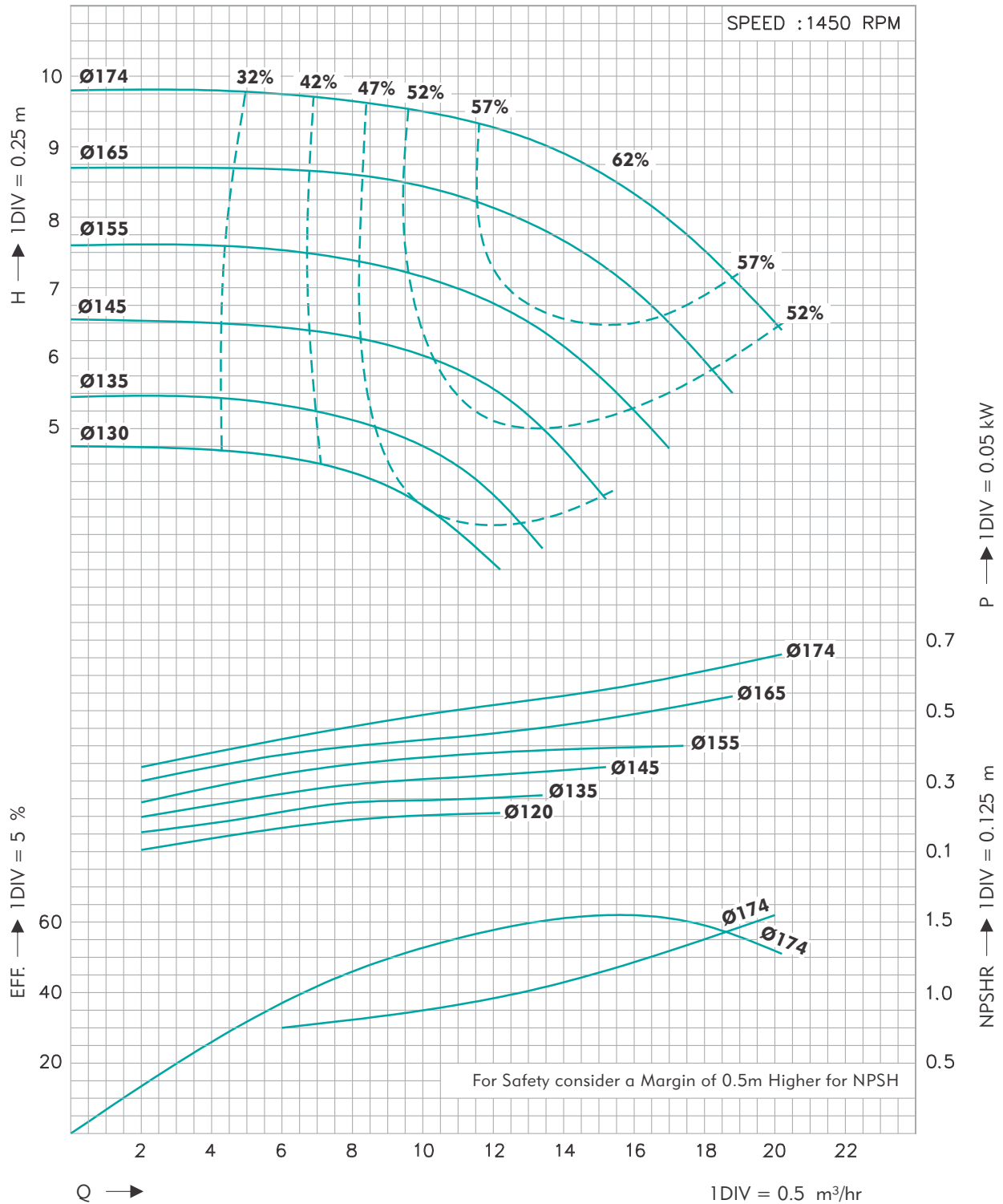


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-160**

SIZE : **65 x 40**

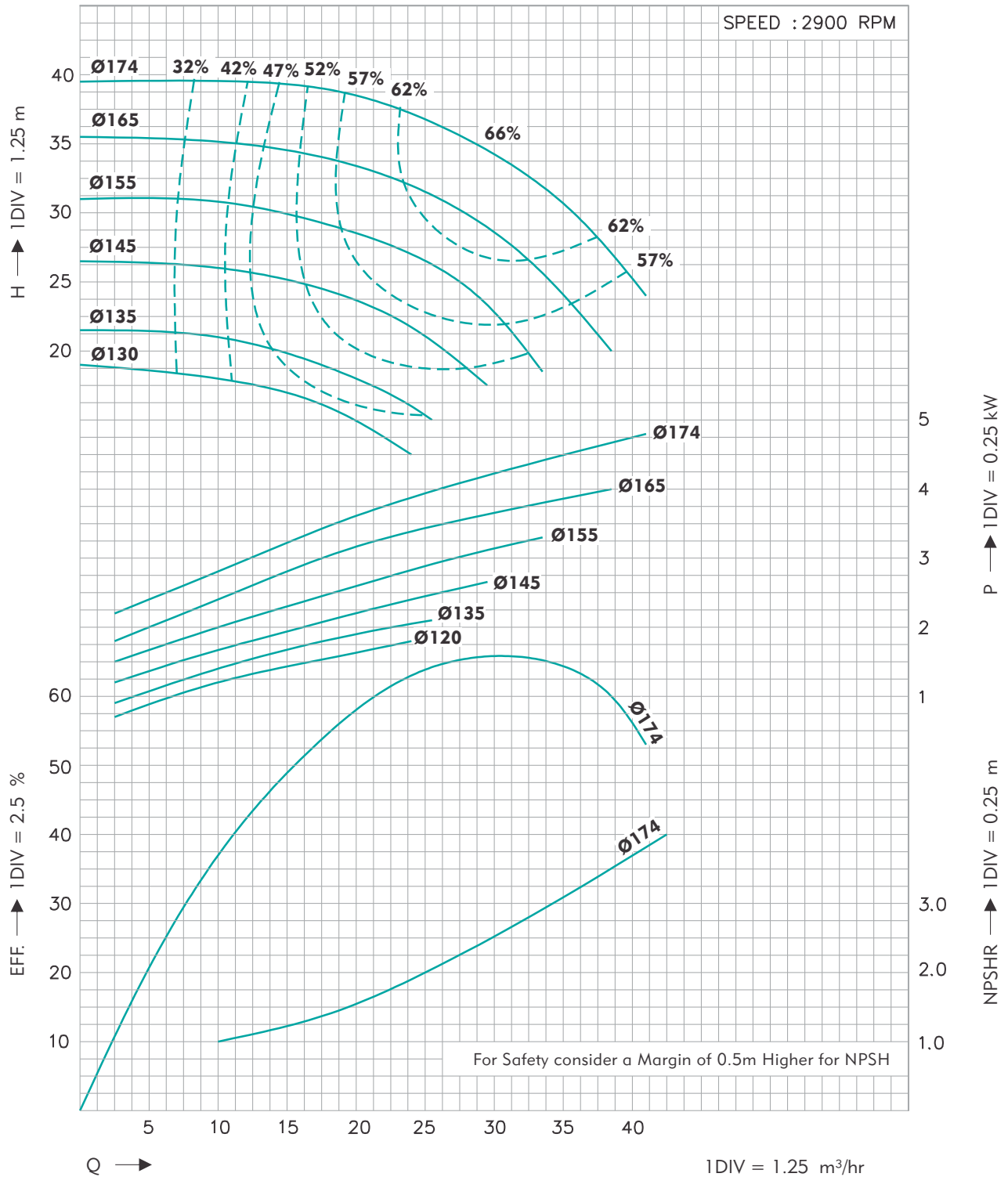


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-160**

SIZE : **65 x 40**

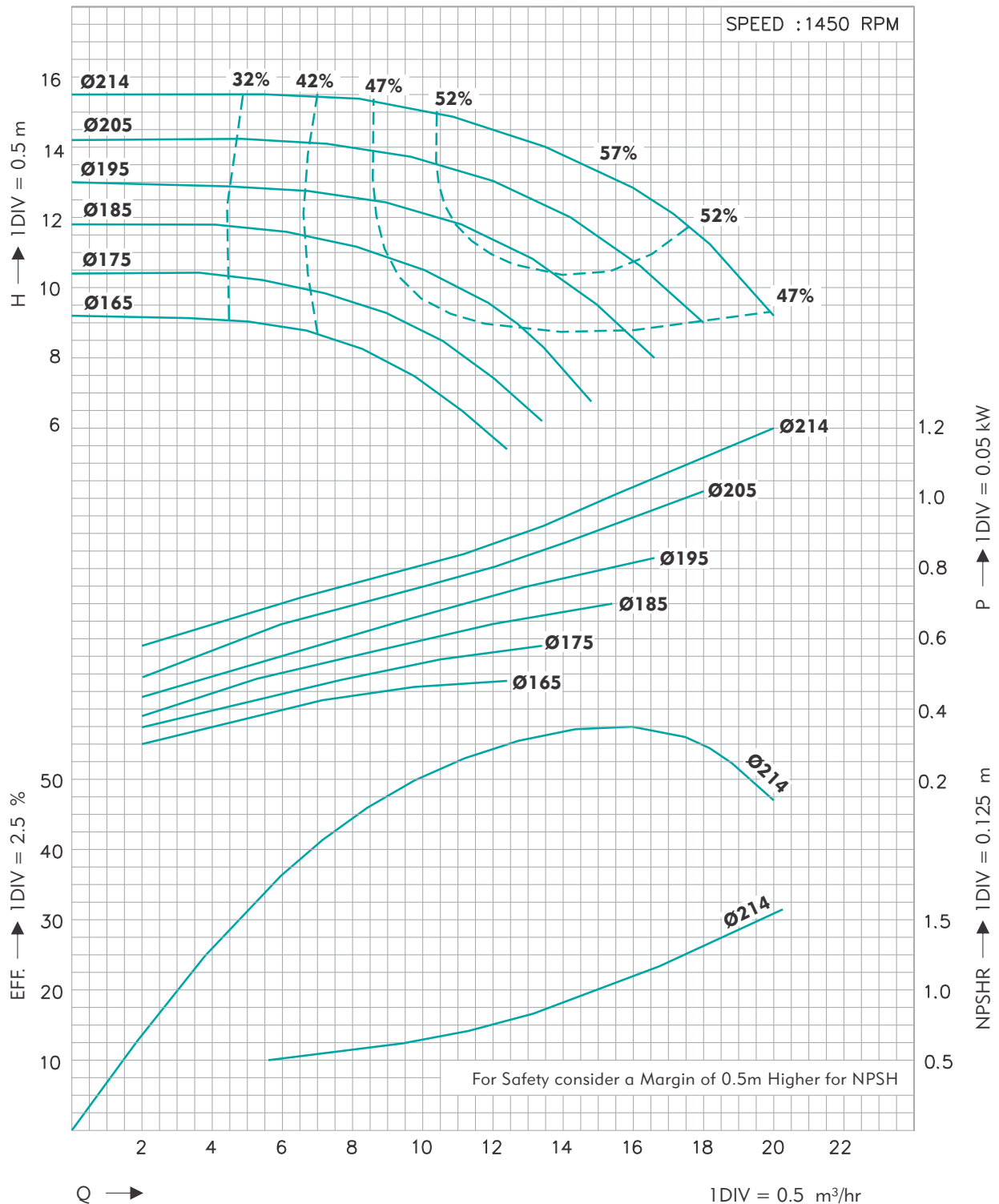


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-200**

SIZE : **65 x 40**

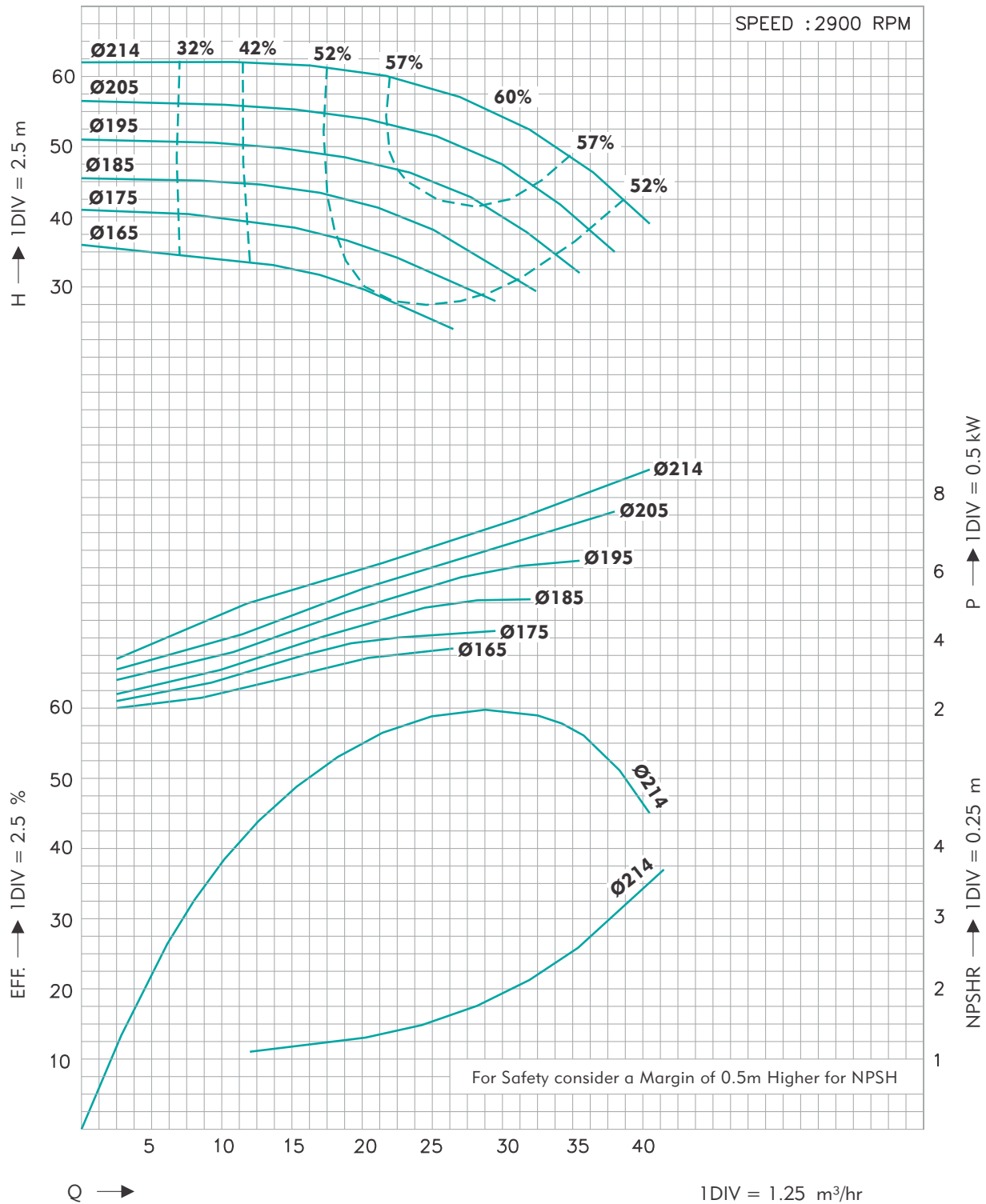


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-200**

SIZE : **65 x 40**

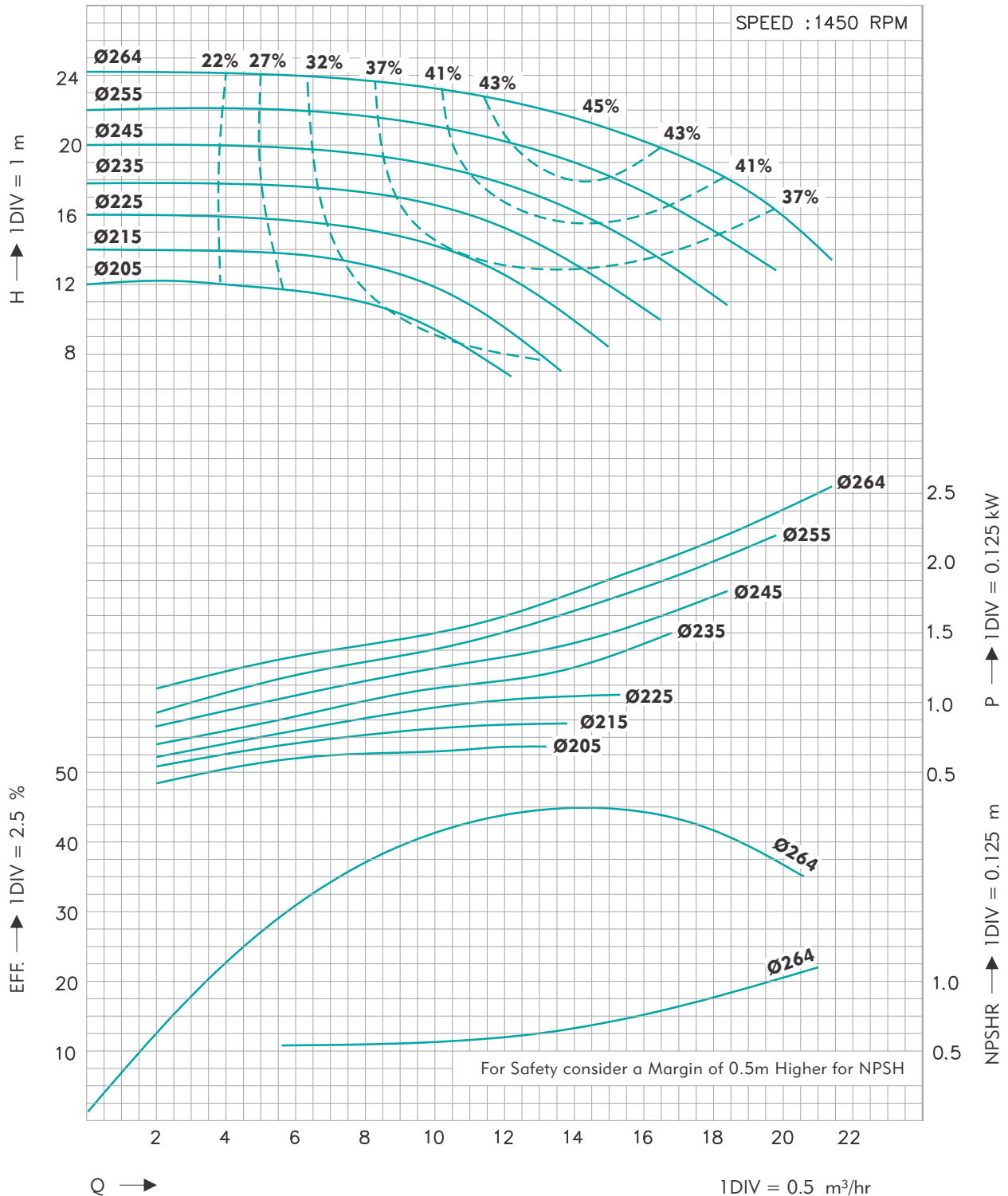


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-260**

SIZE : **65 x 40**

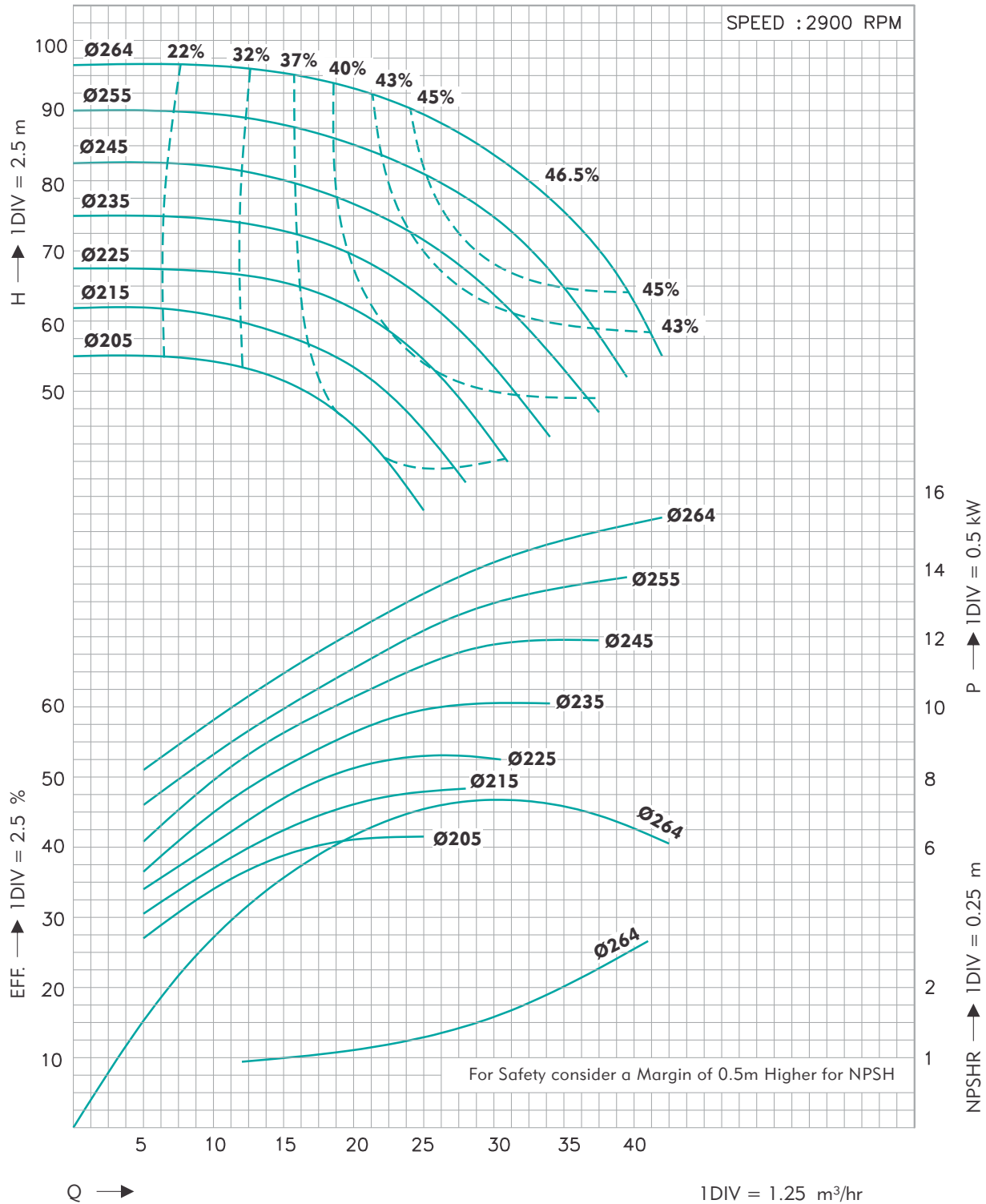


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-260**

SIZE : **65 x 40**

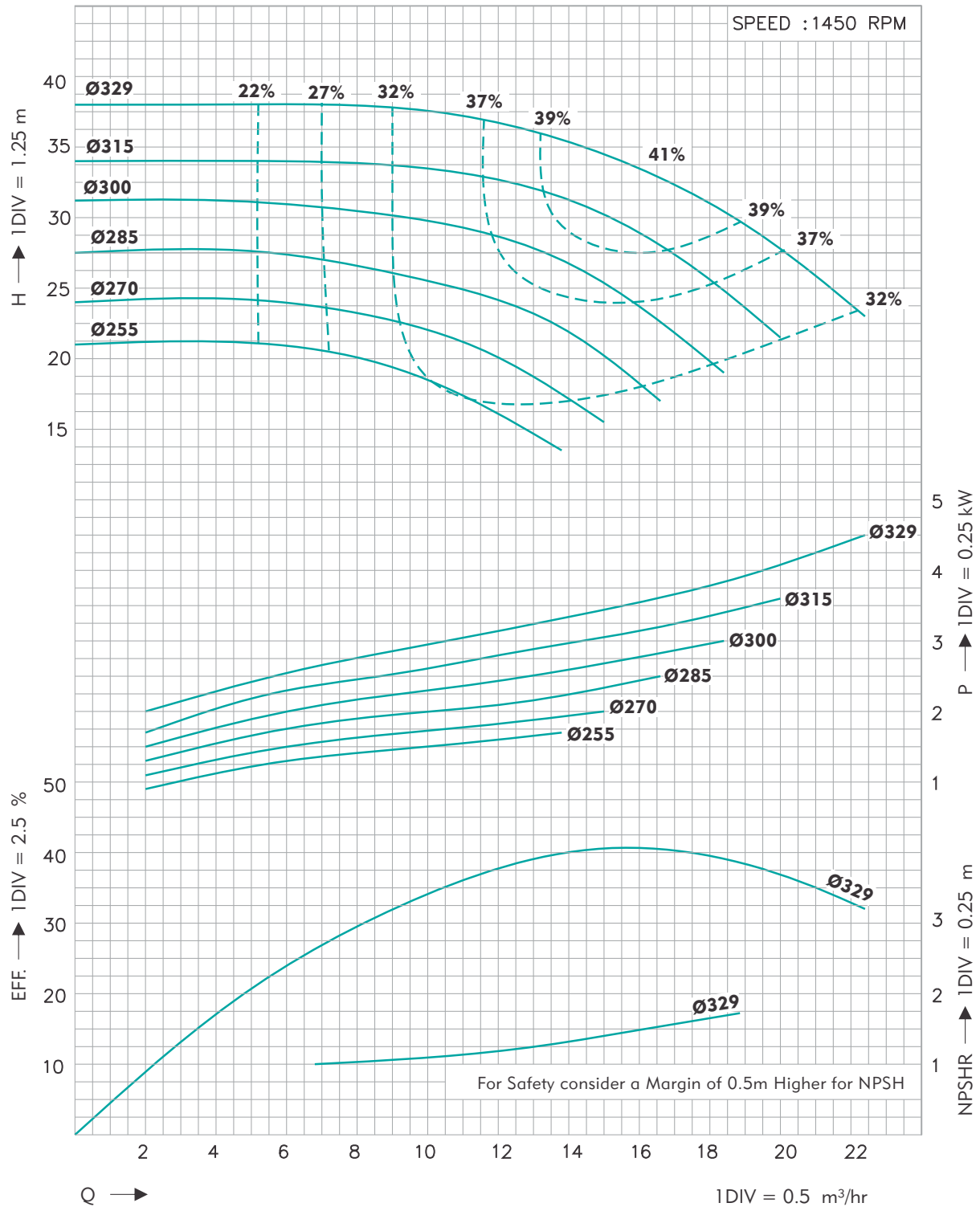


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-320**

SIZE : **65 x 40**

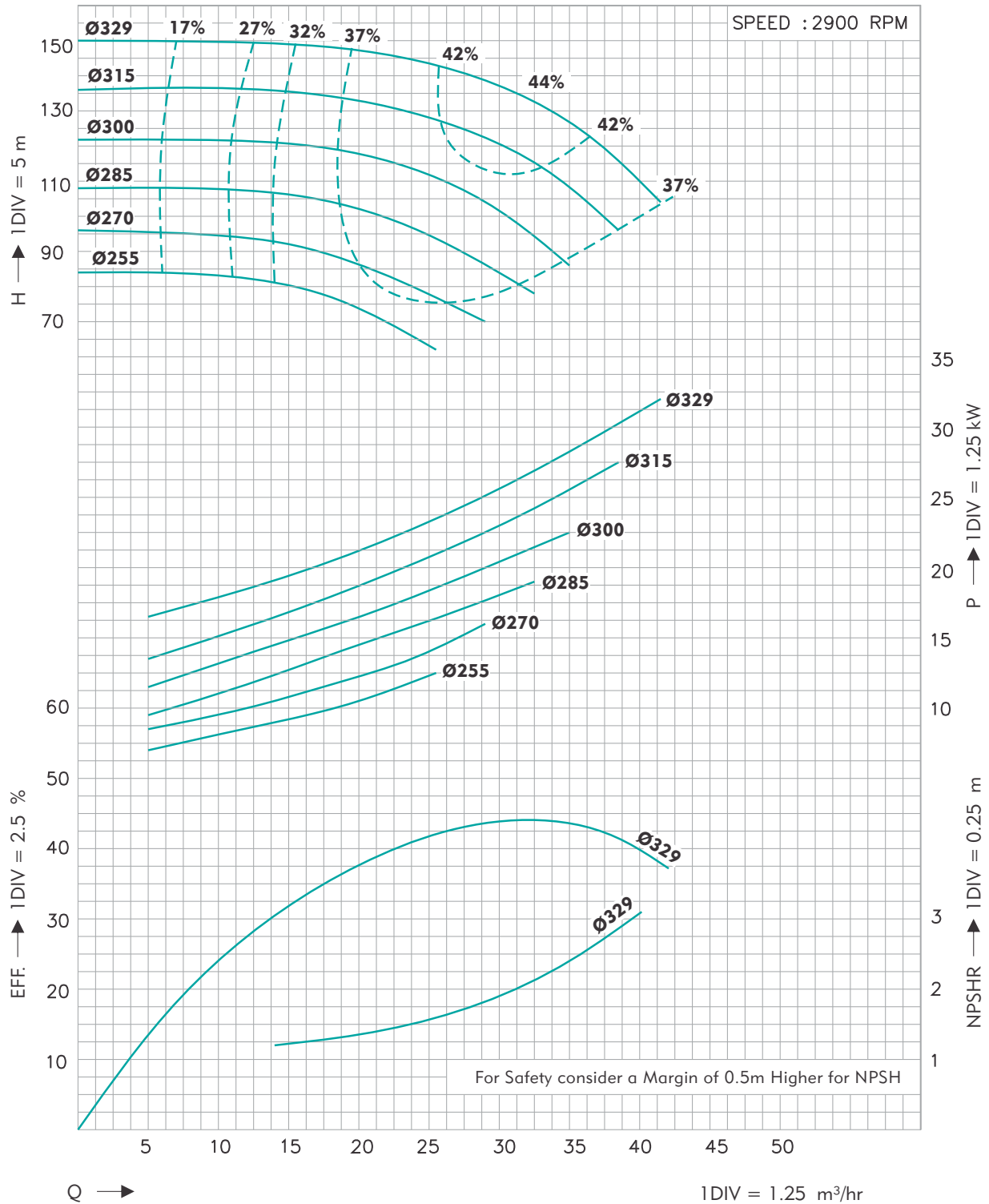


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-40-320** - On request

SIZE : **65 x 40**

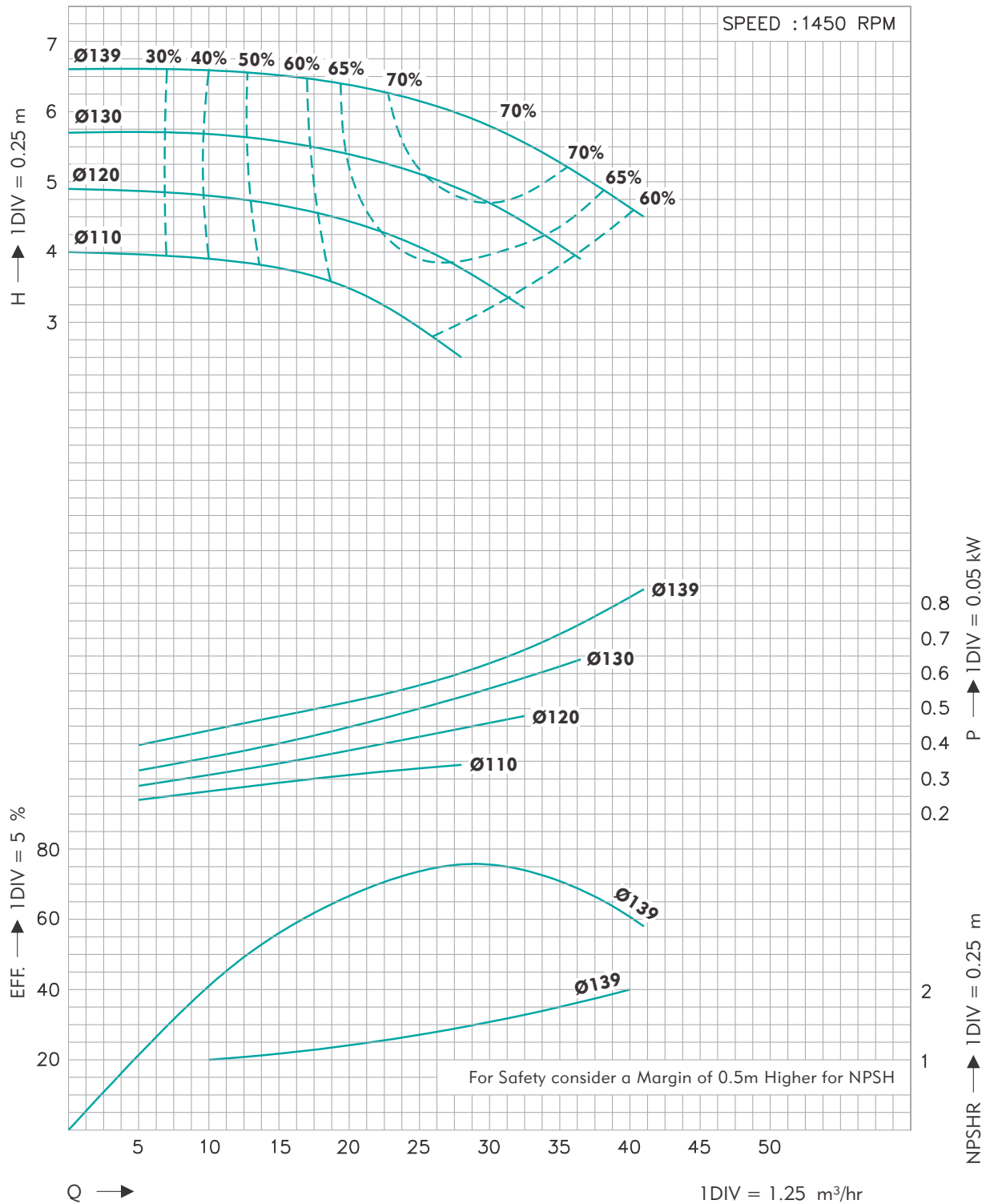


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-130**

SIZE : **65 x 50**

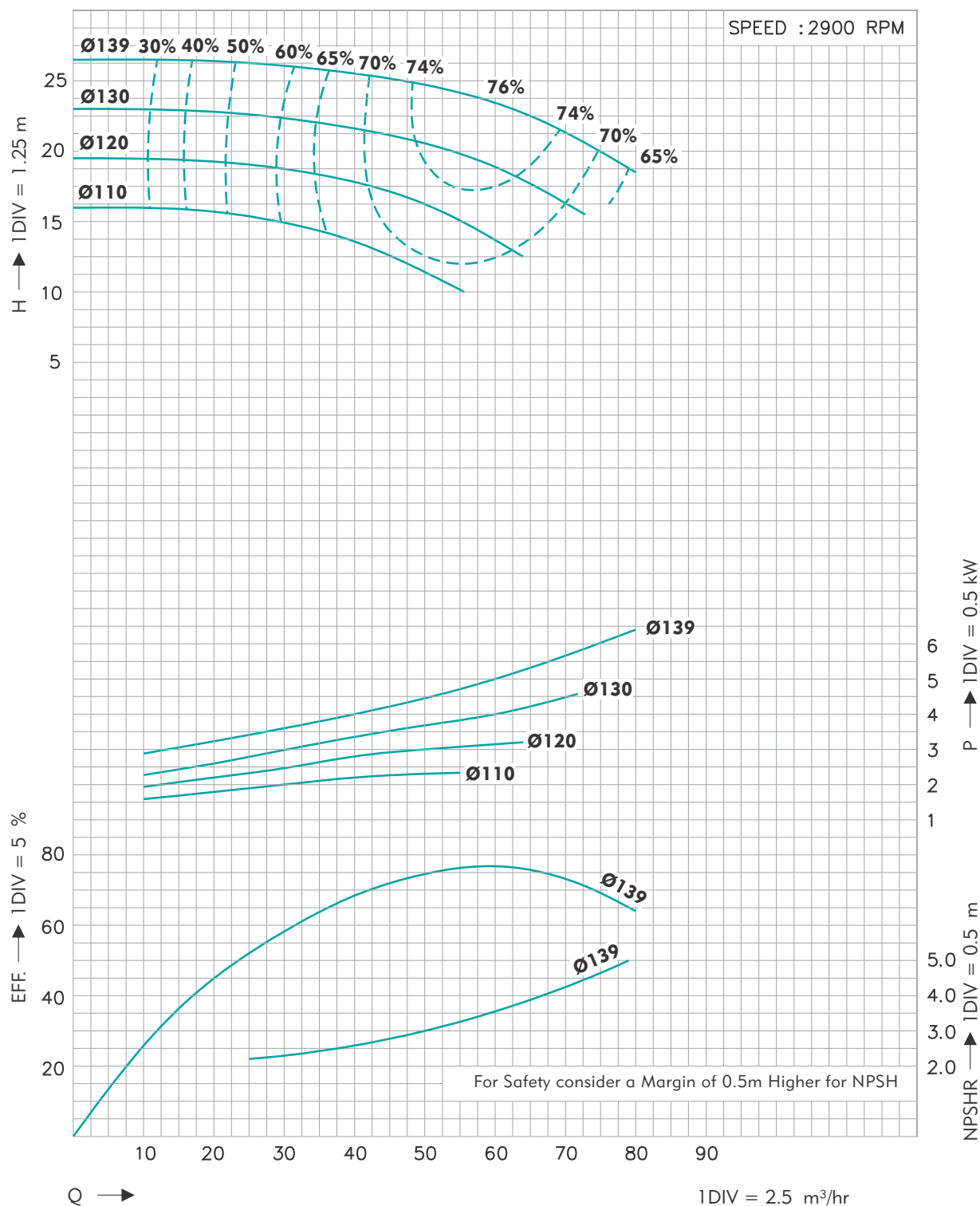


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-130**

SIZE : **65 x 50**

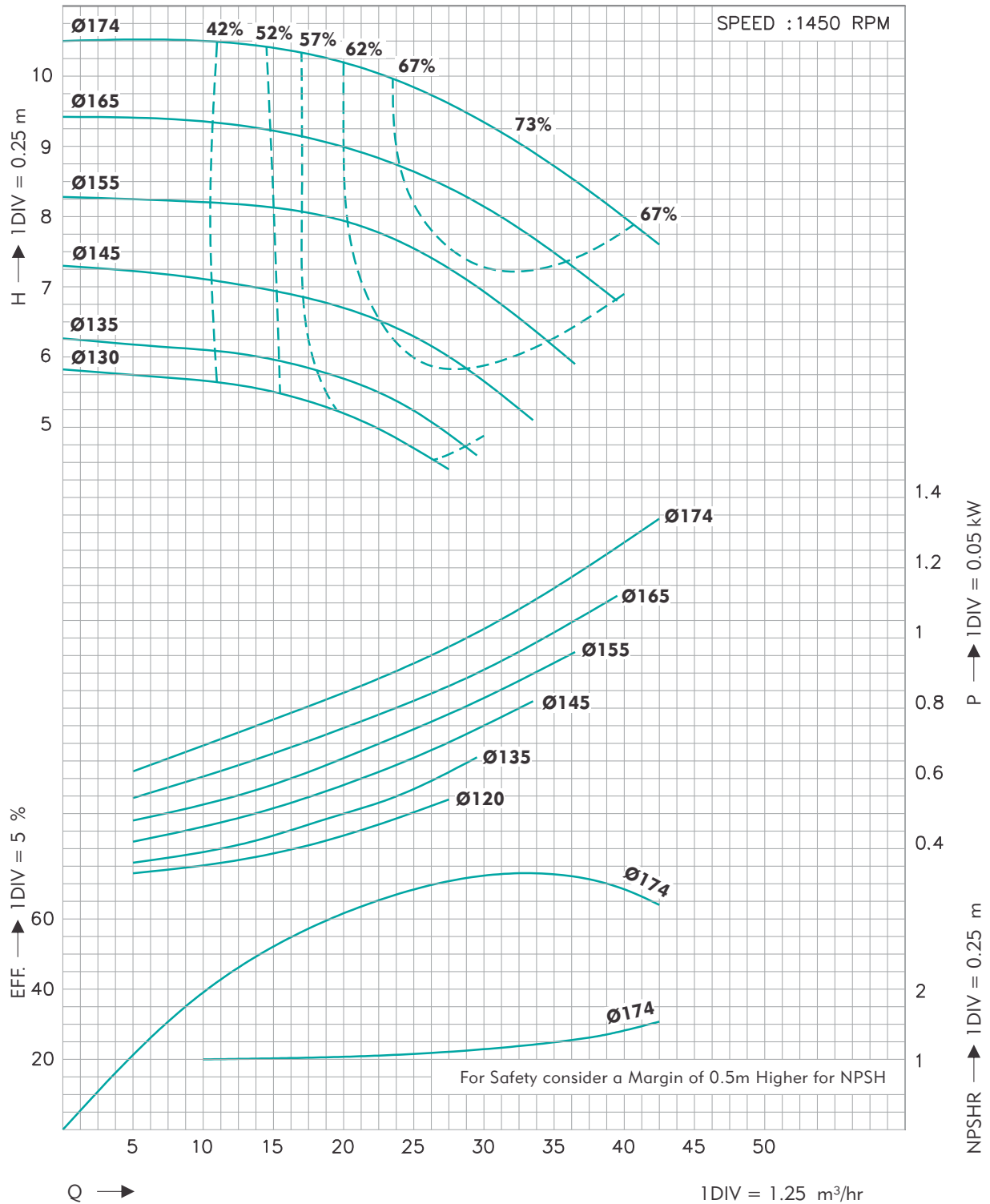


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-160**

SIZE : **65 x 50**

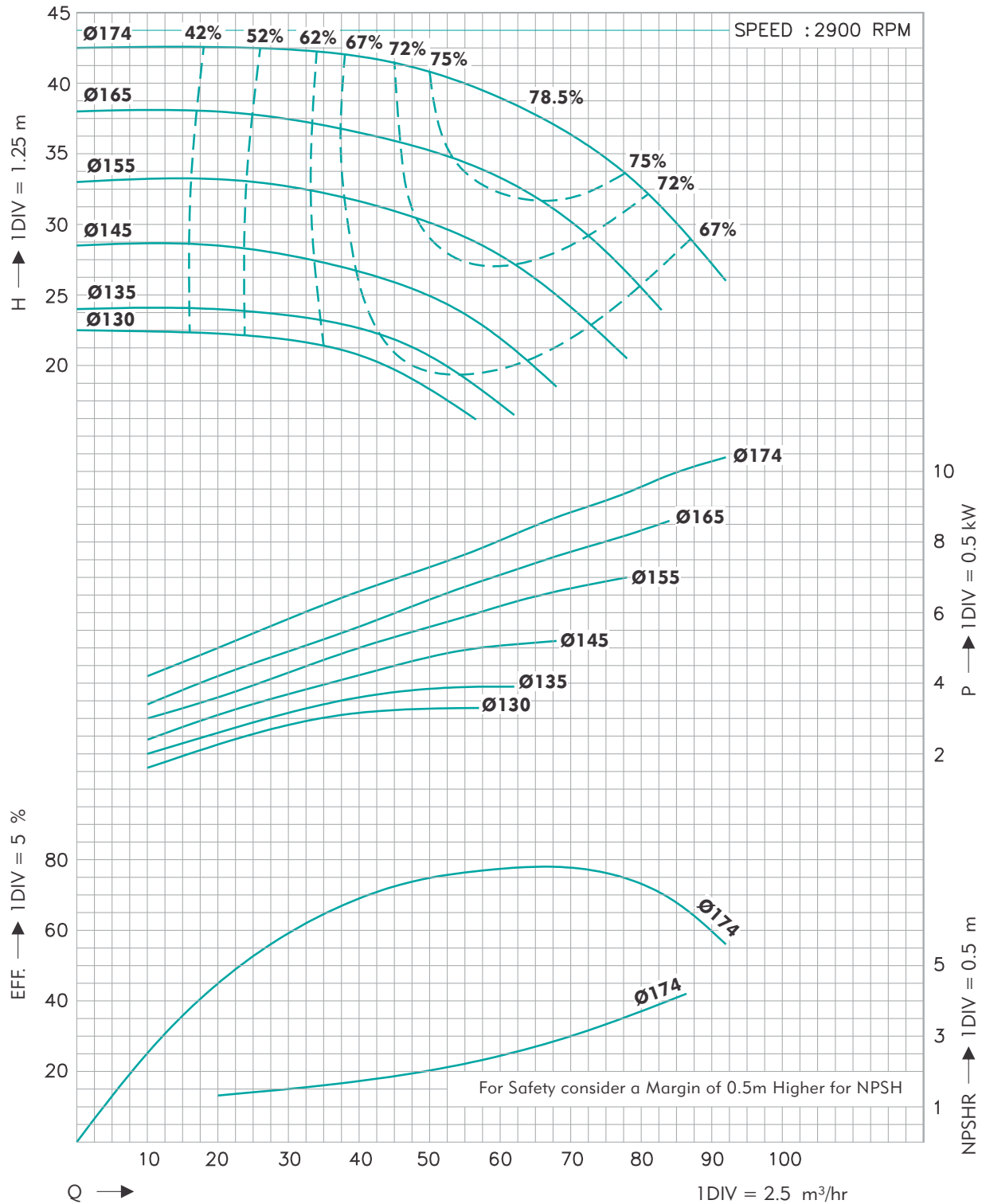


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-160**

SIZE : **65 x 50**

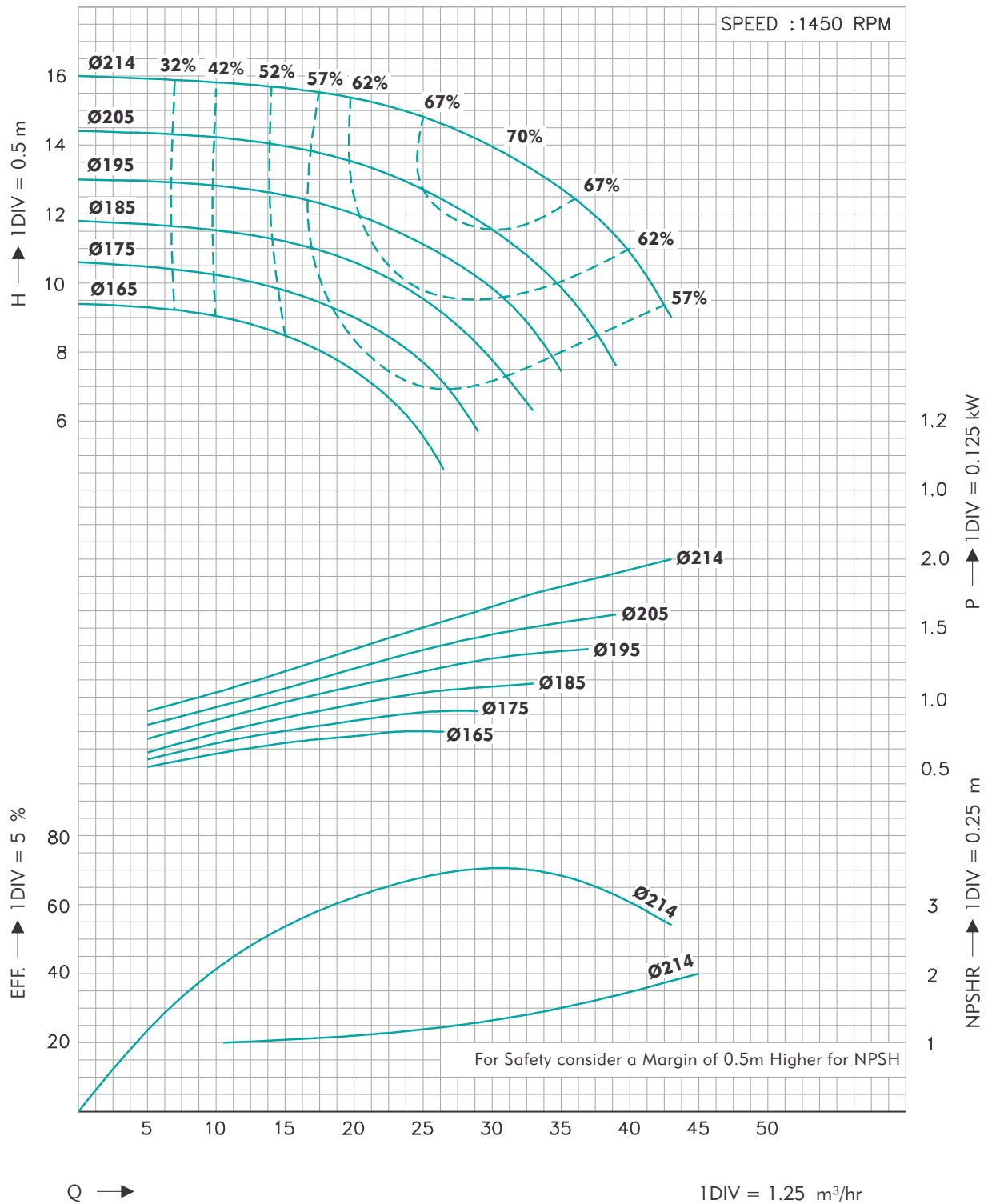


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-200**

SIZE : **65 x 50**

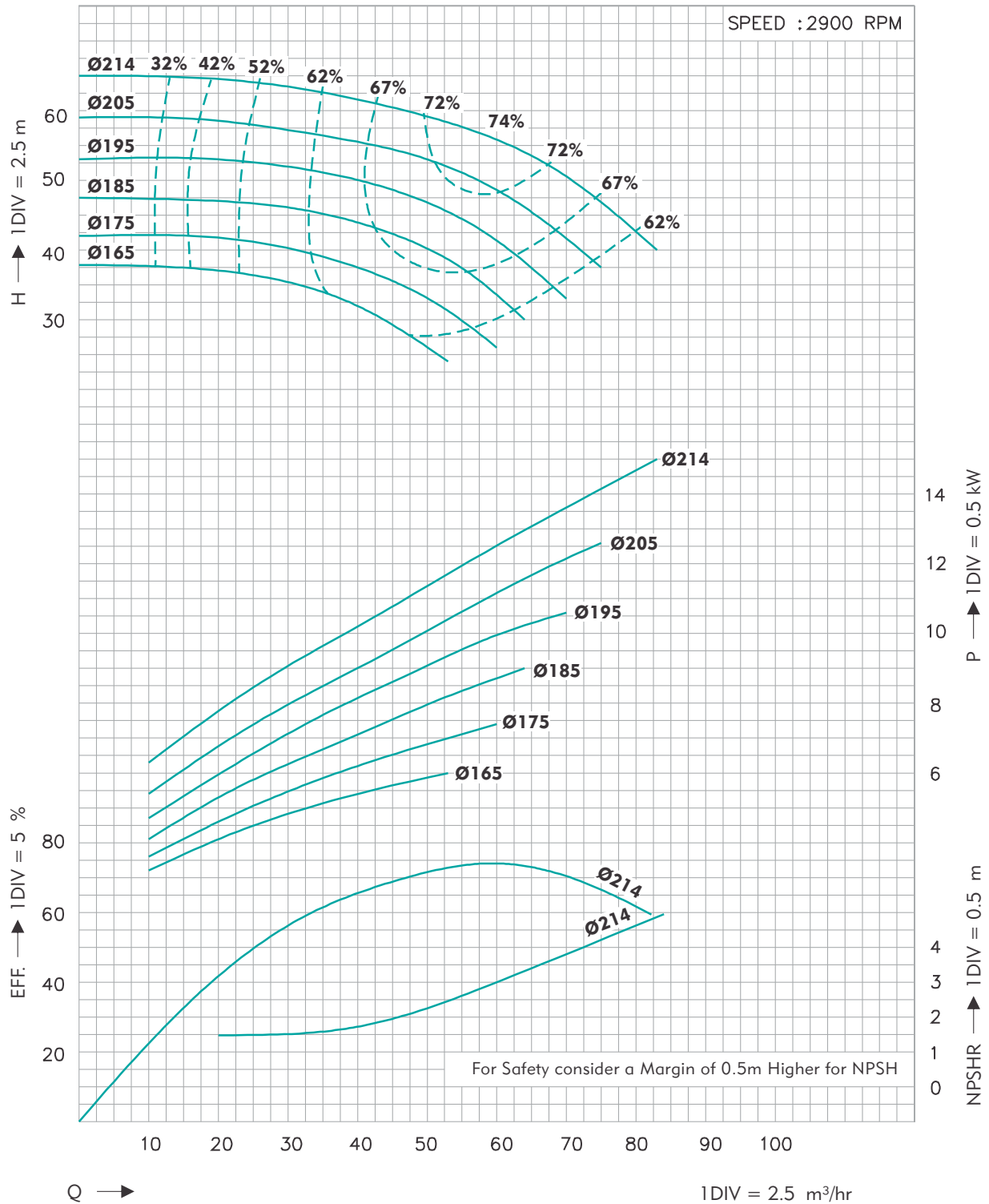


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-200**

SIZE : **65 x 50**

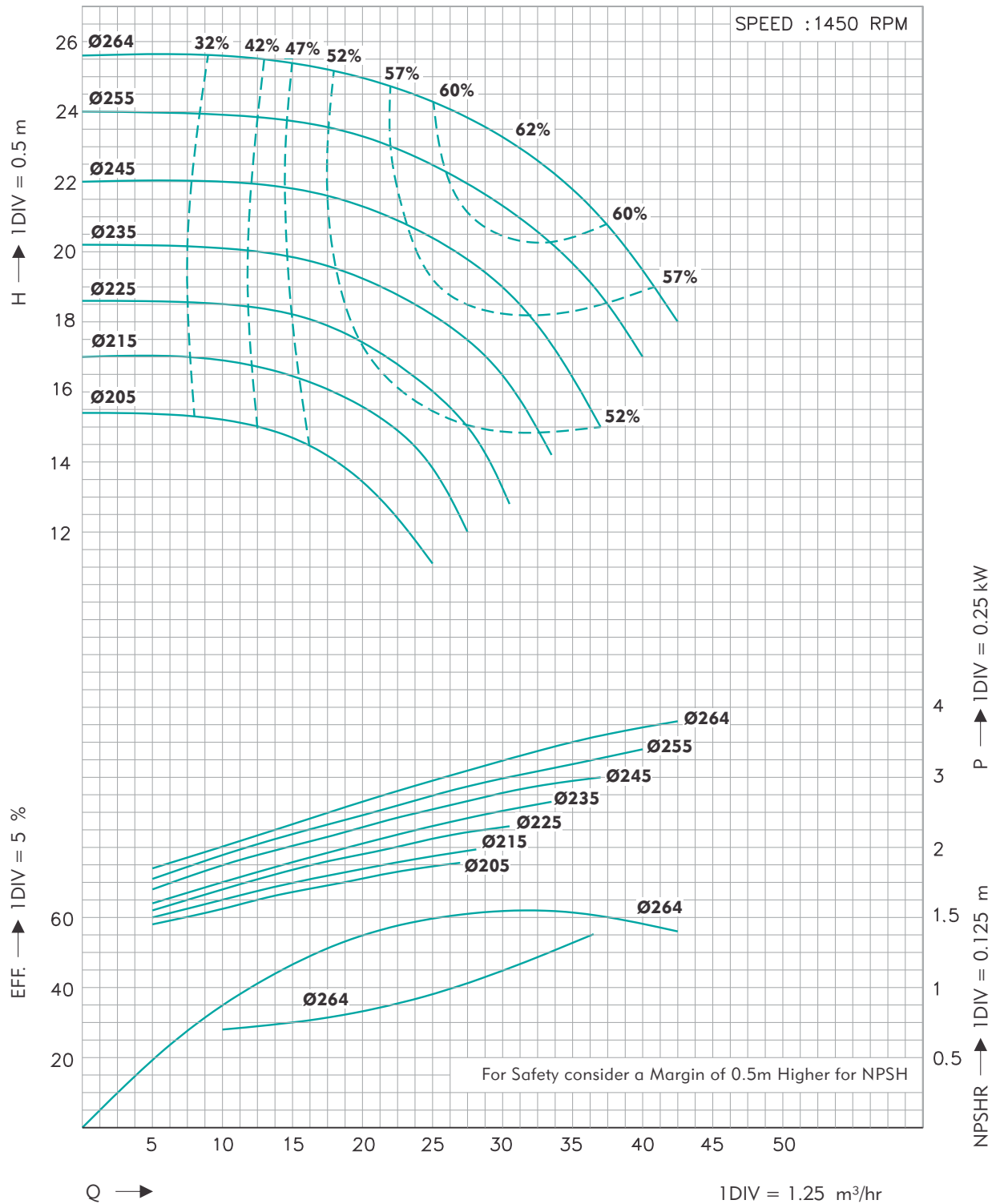


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-260**

SIZE : **65 x 50**

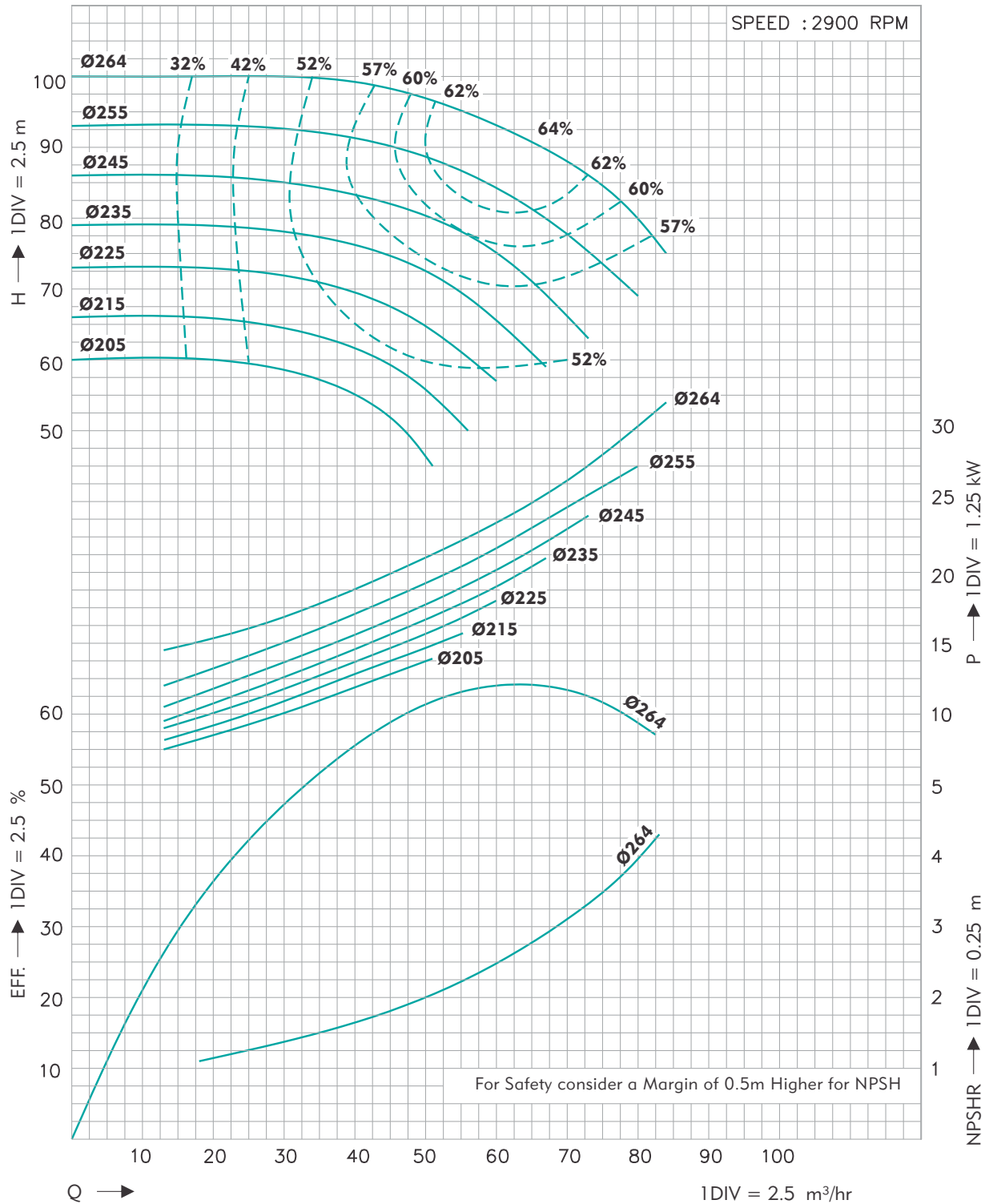


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-260**

SIZE : **65 x 50**

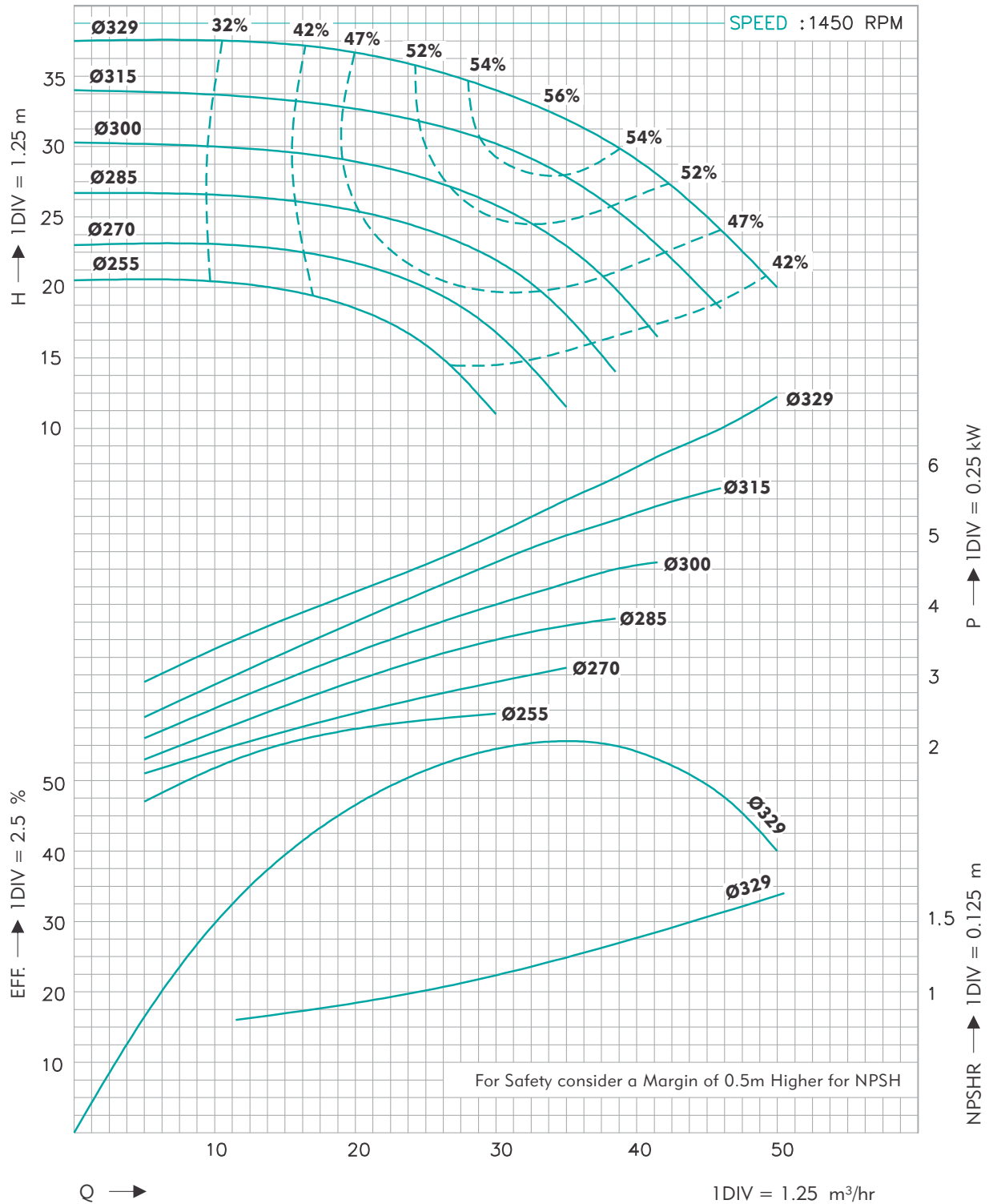


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-320**

SIZE : **80 x 50**

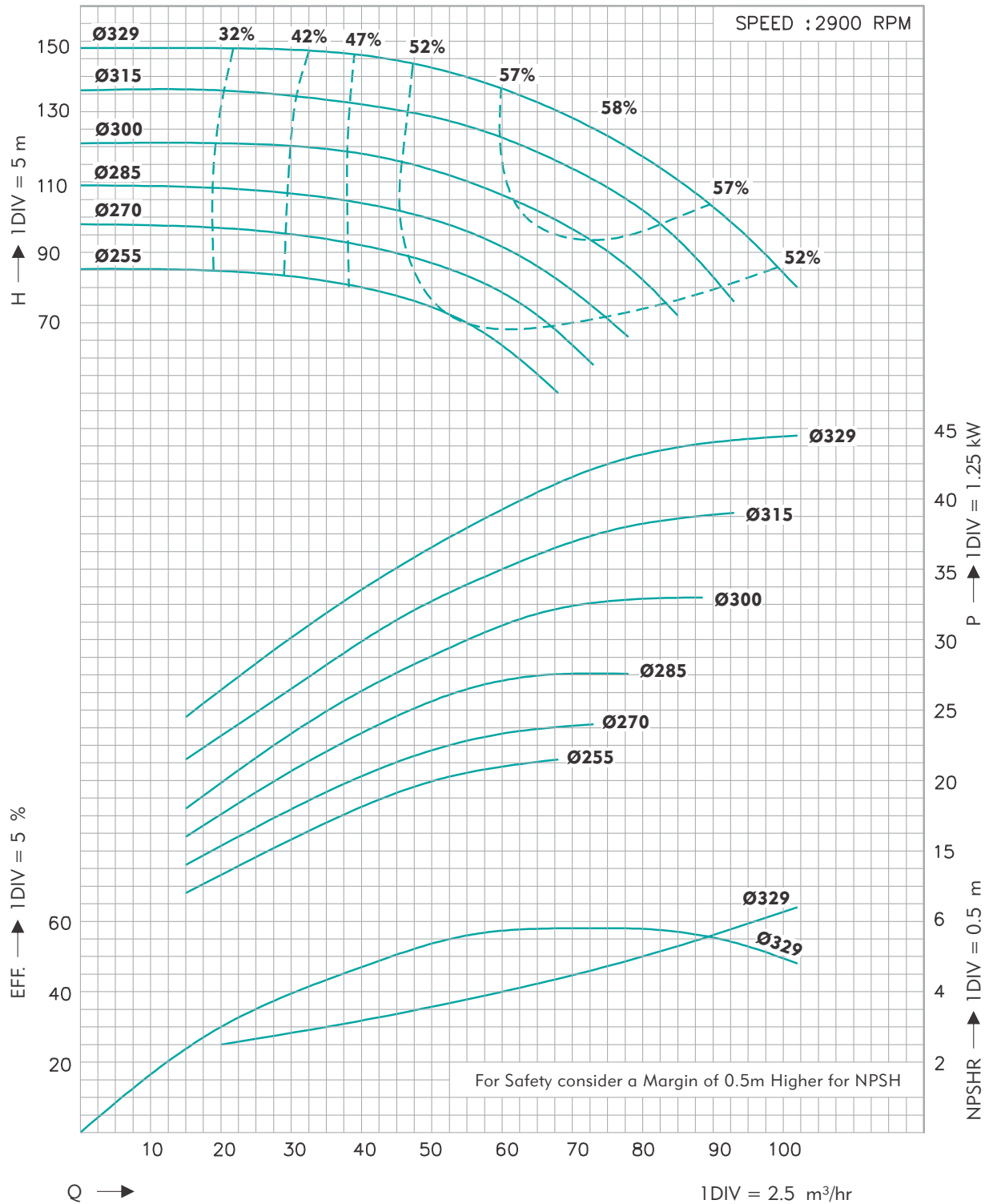


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-50-320** - On request

SIZE : **80 x 50**

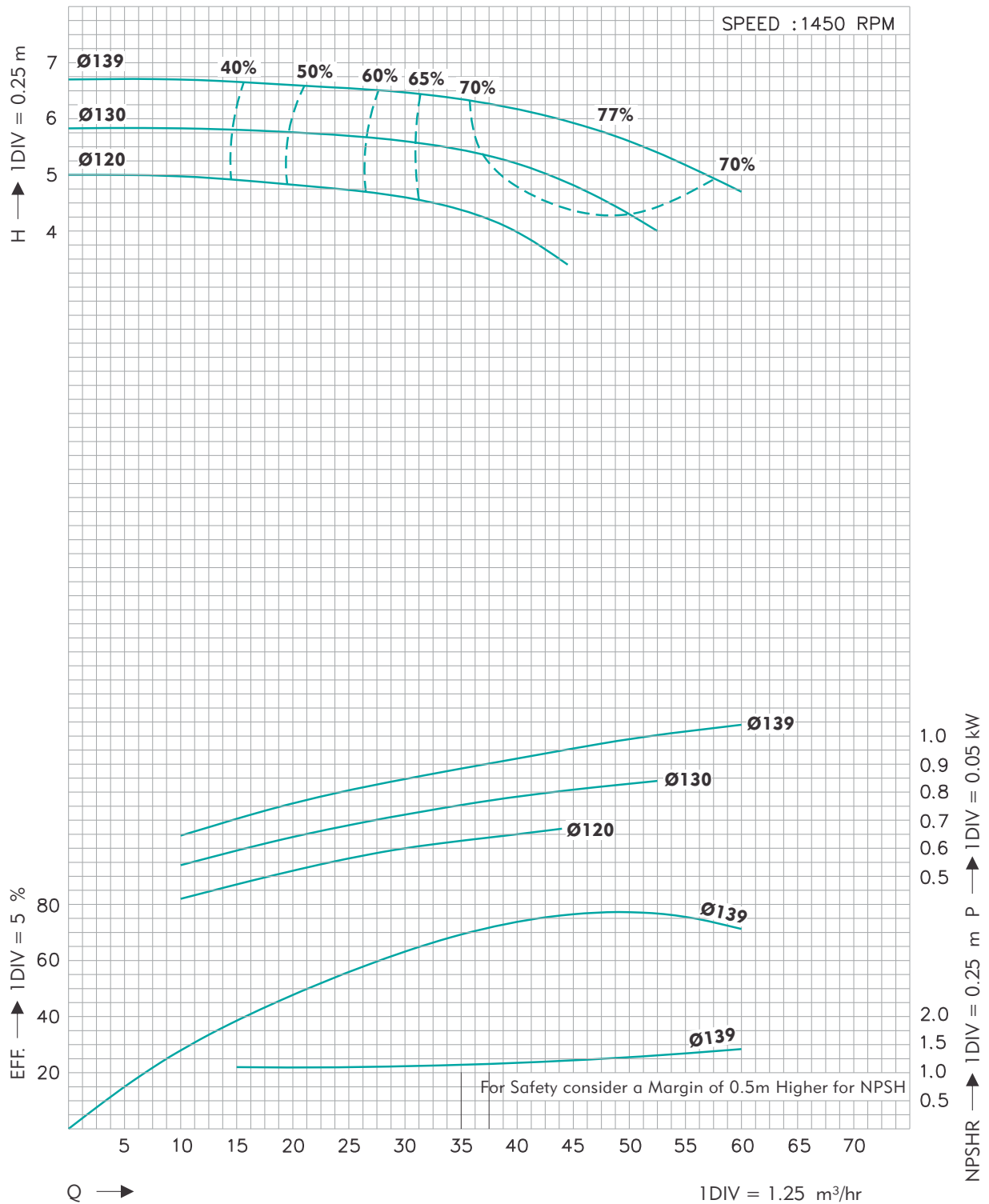


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-130**

SIZE : **80 x 65**

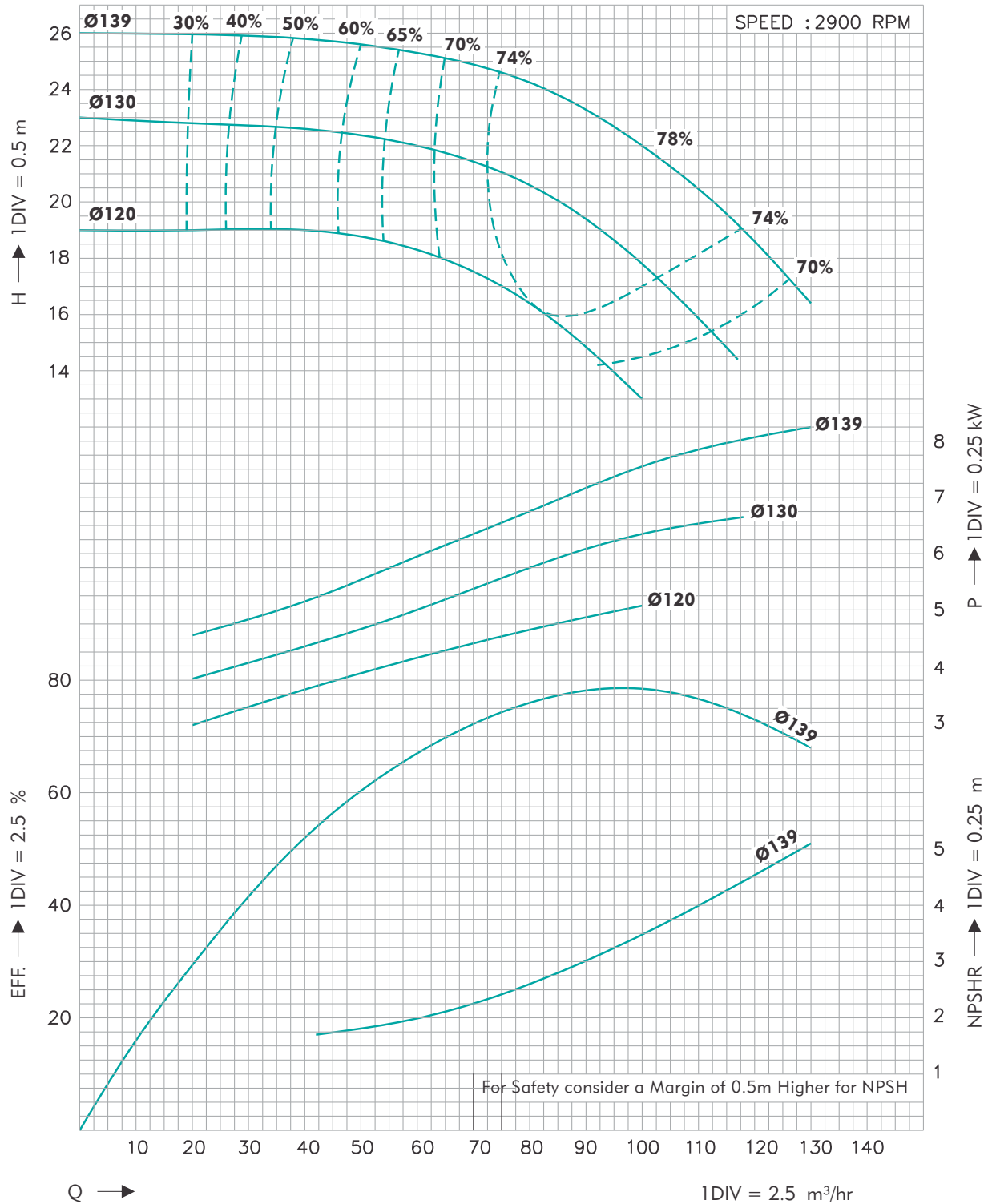


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-130**

SIZE : **80 x 65**

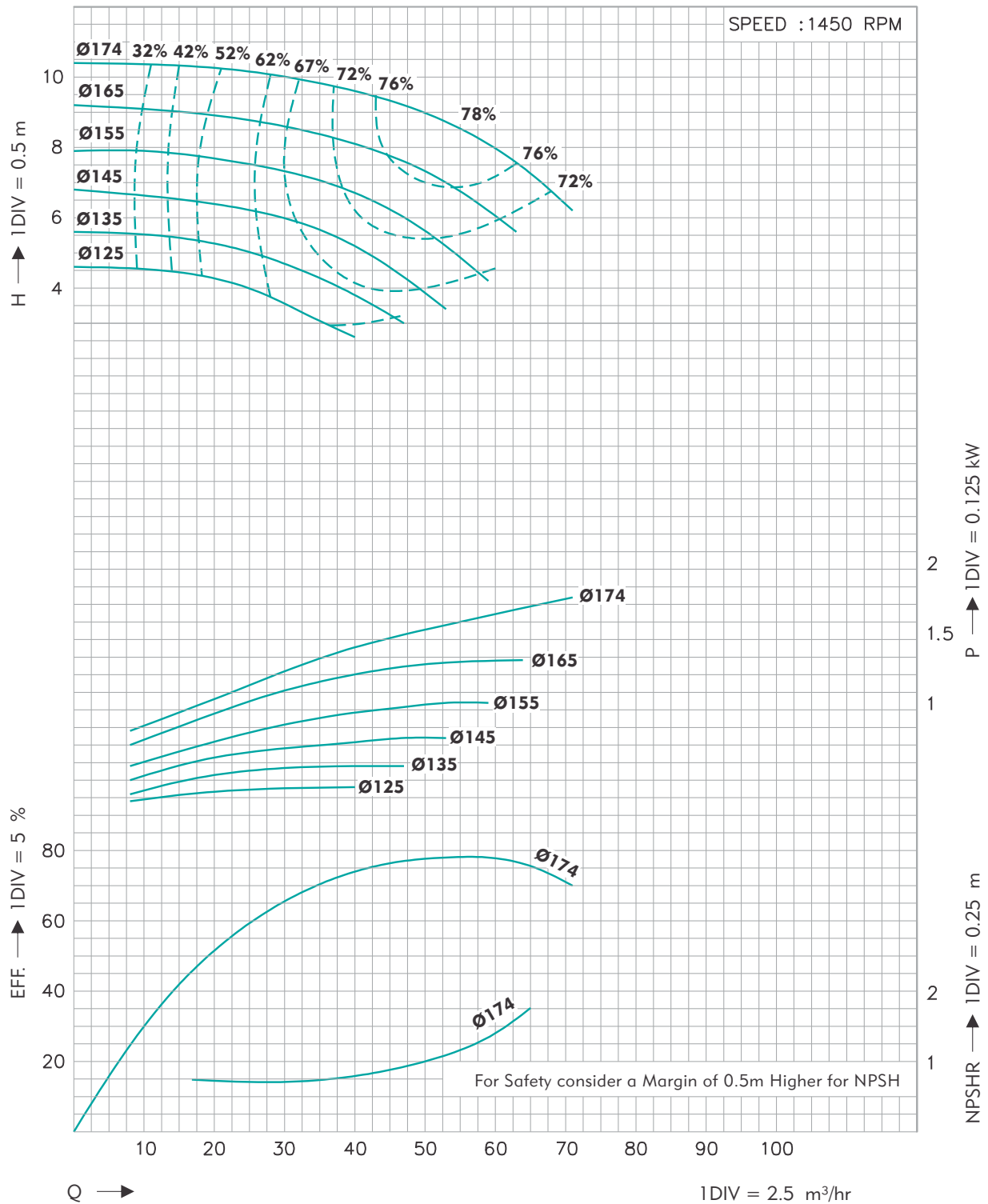


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-160**

SIZE : **80 x 65**

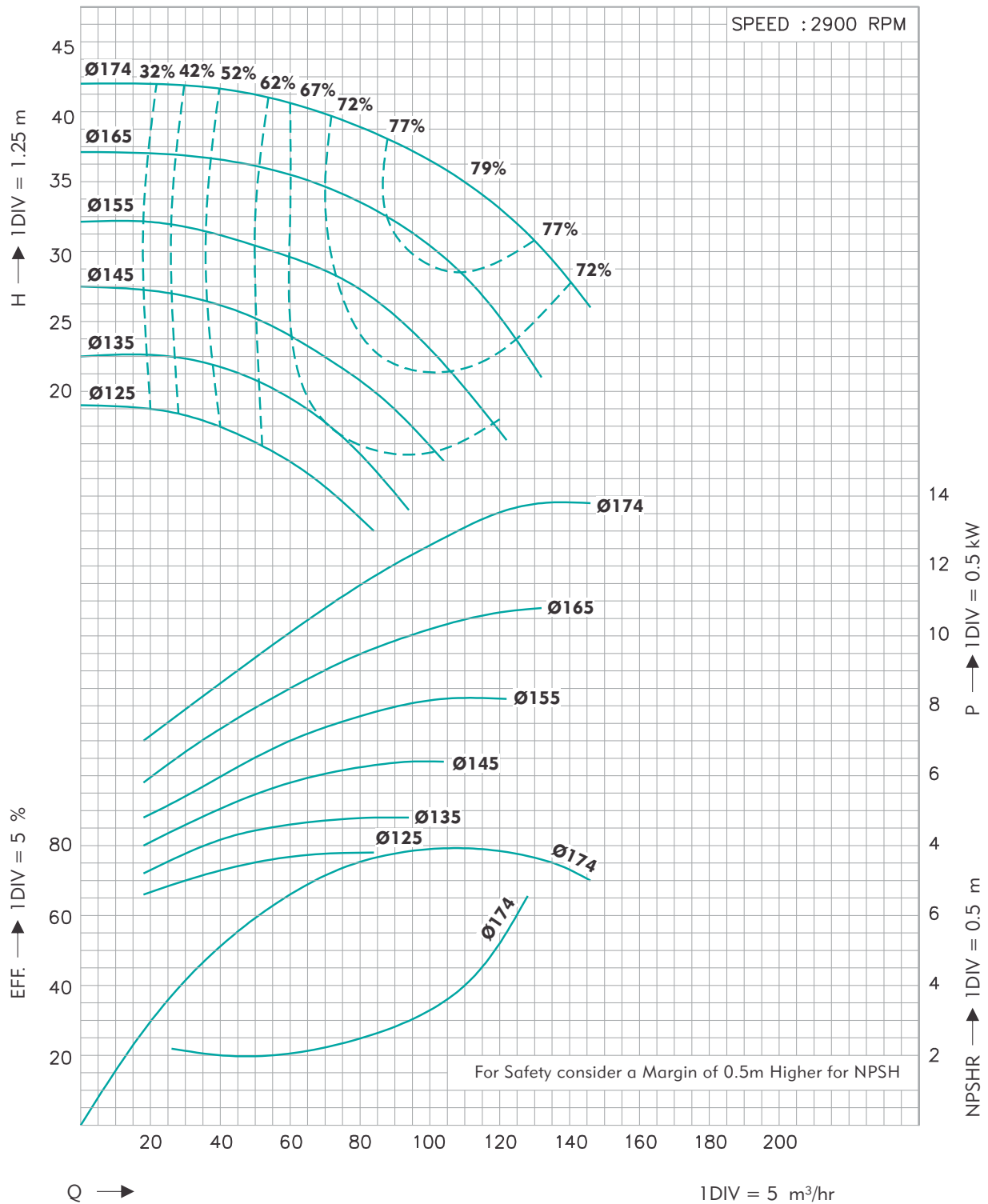


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-160**

SIZE : **80 x 65**

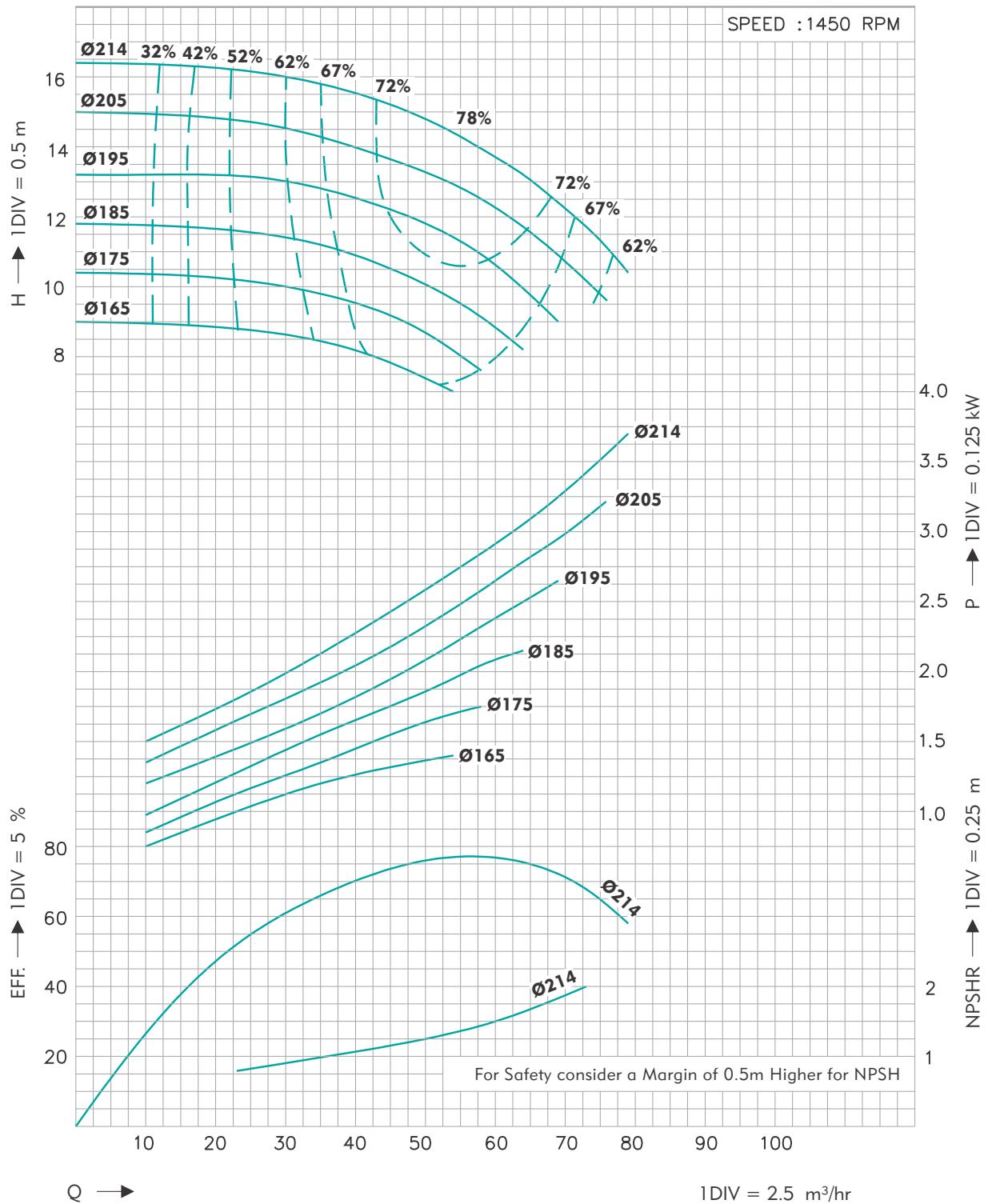


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-200**

SIZE : **80 x 65**

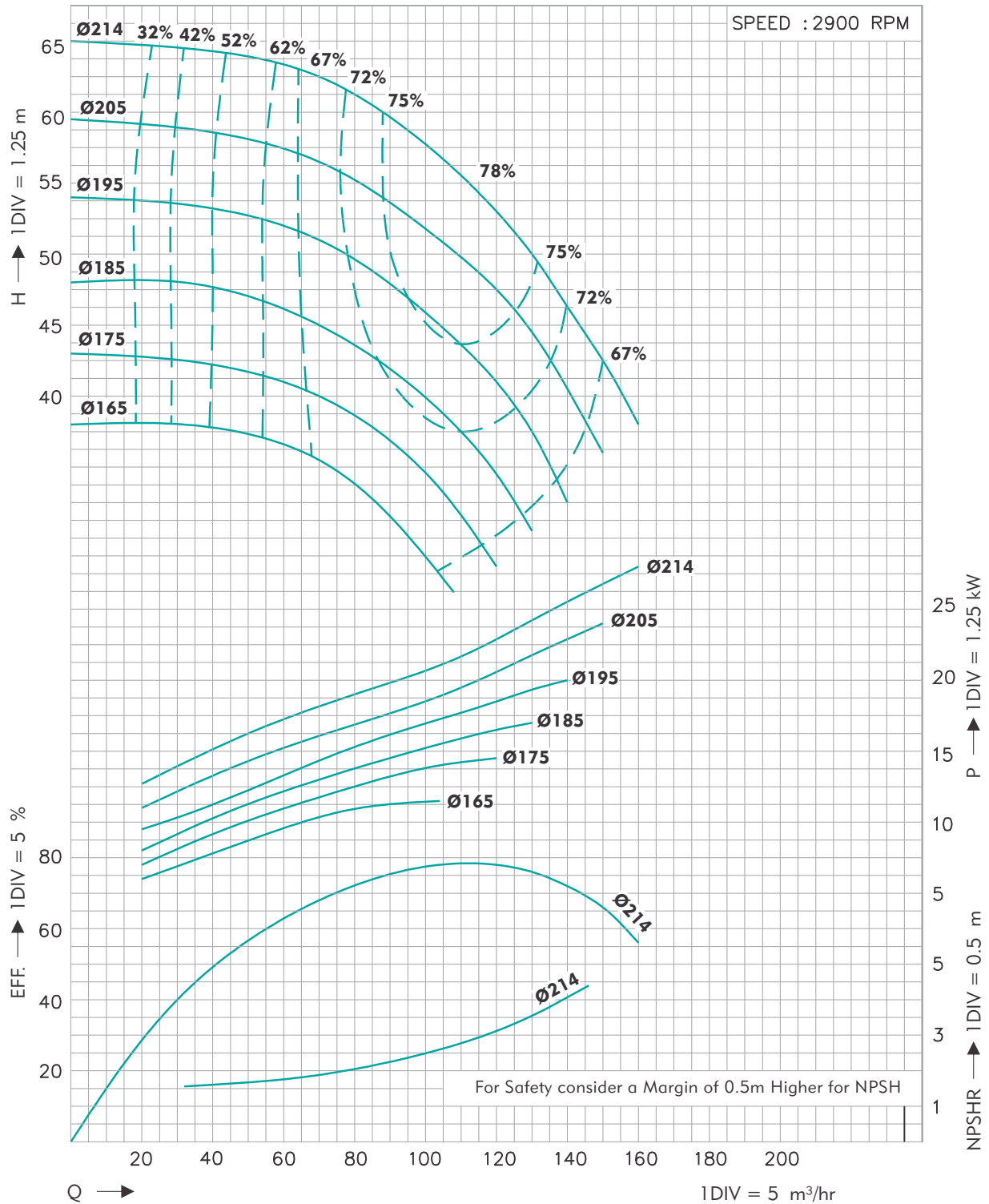


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-200**

SIZE : **80 x 65**

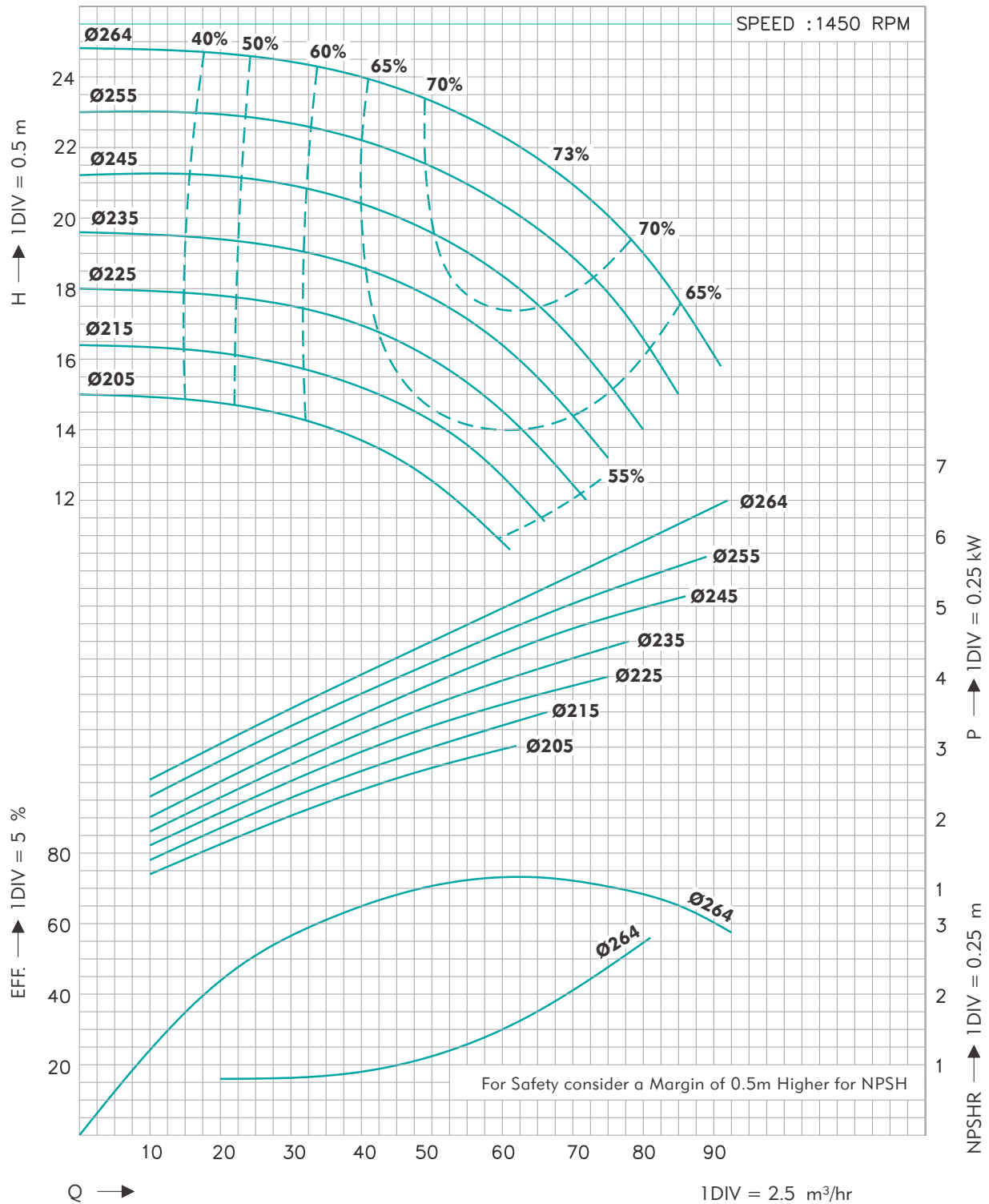


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-260**

SIZE : **100 x 65**

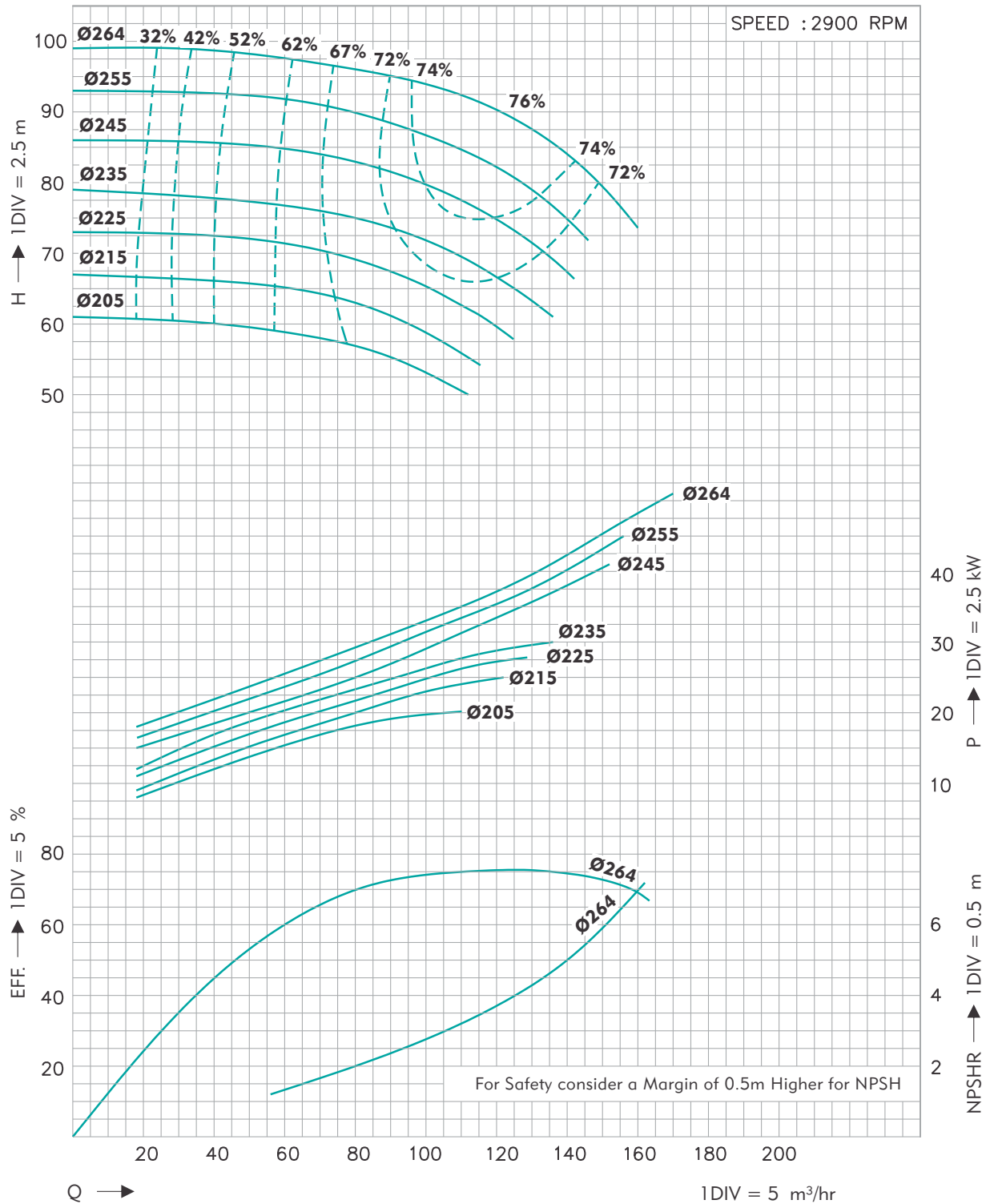


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-260**

SIZE : **100 x 65**

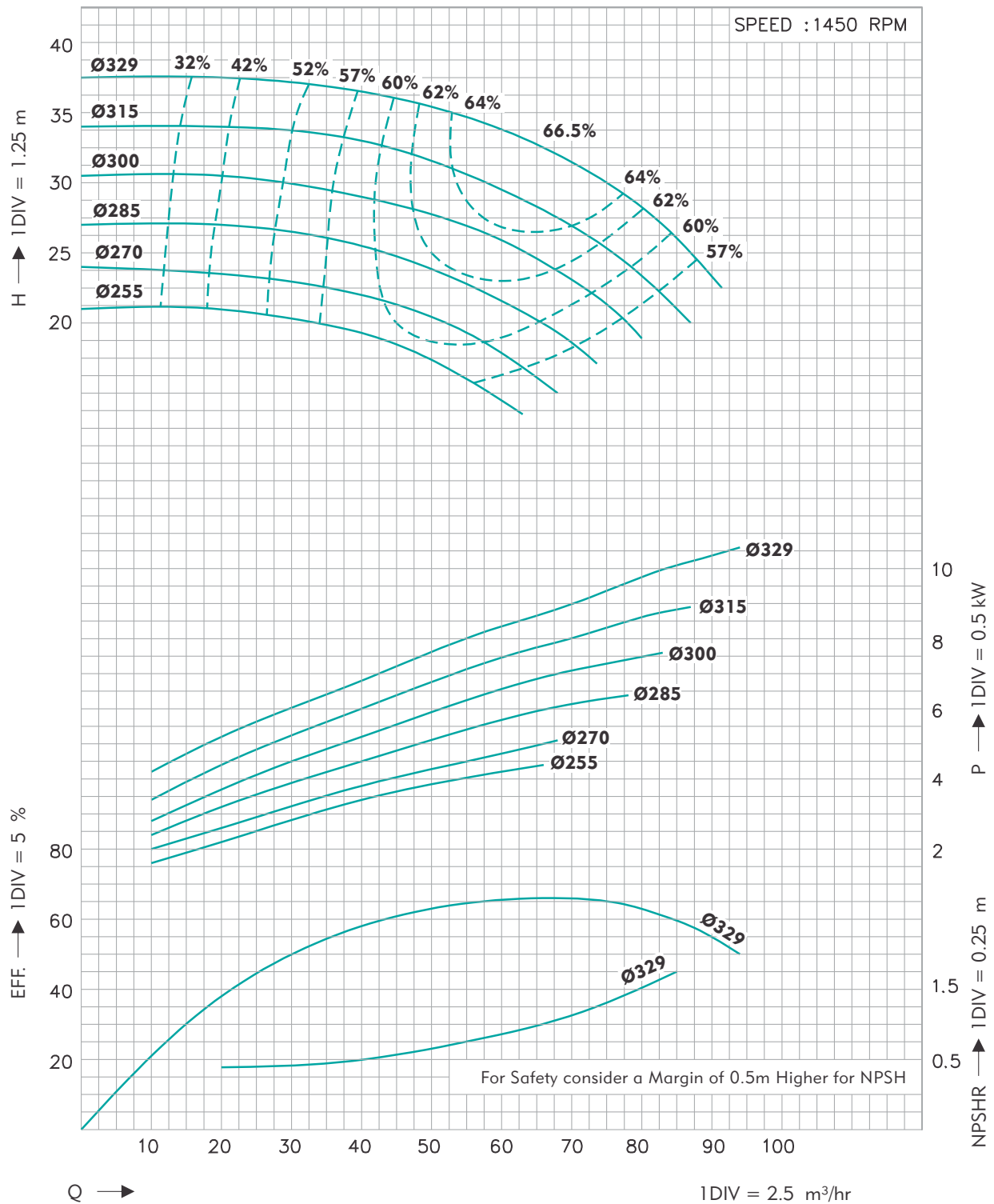


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-320**

SIZE : **80 x 65**

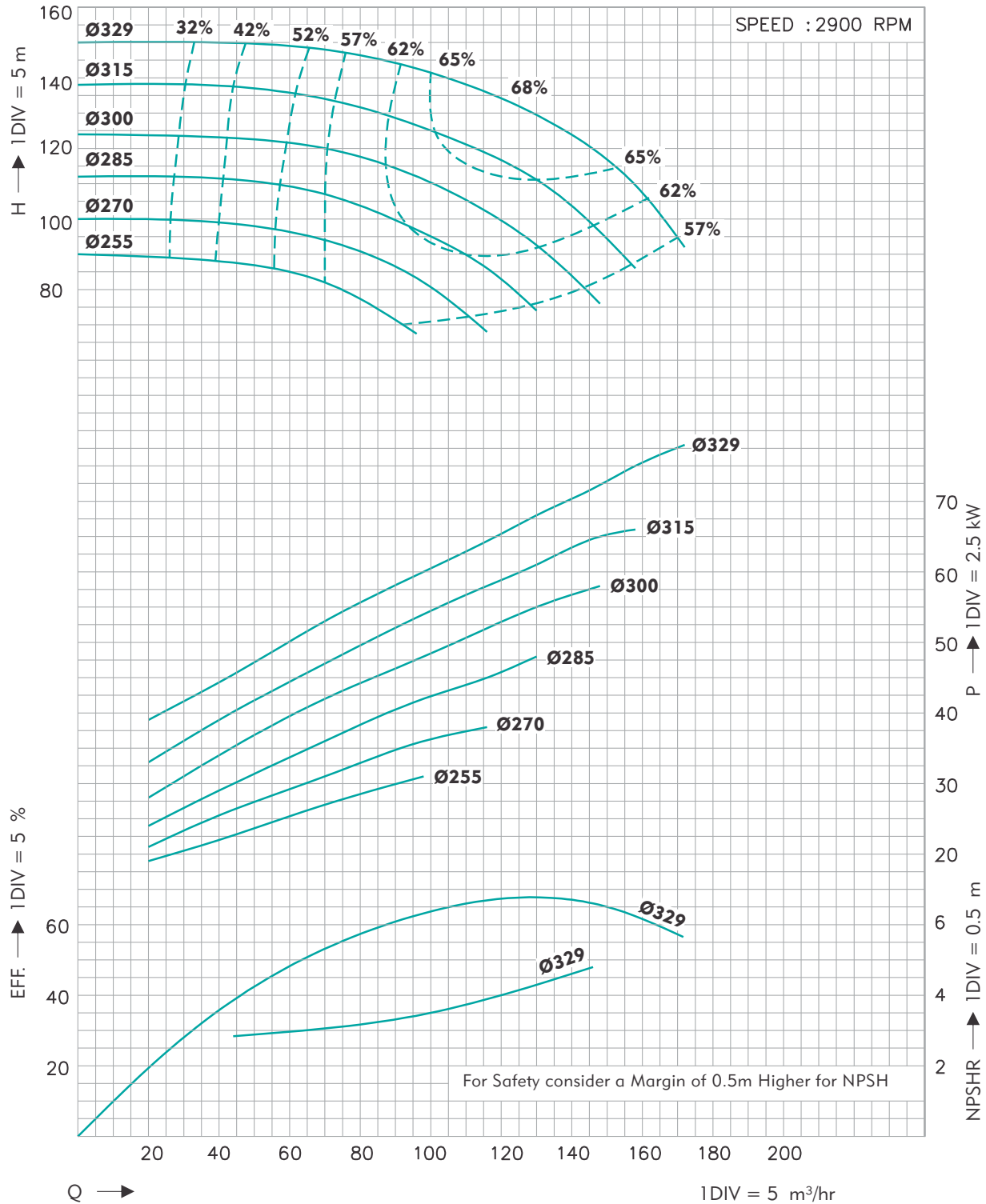


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-65-320** - On request

SIZE : **100 x 65**

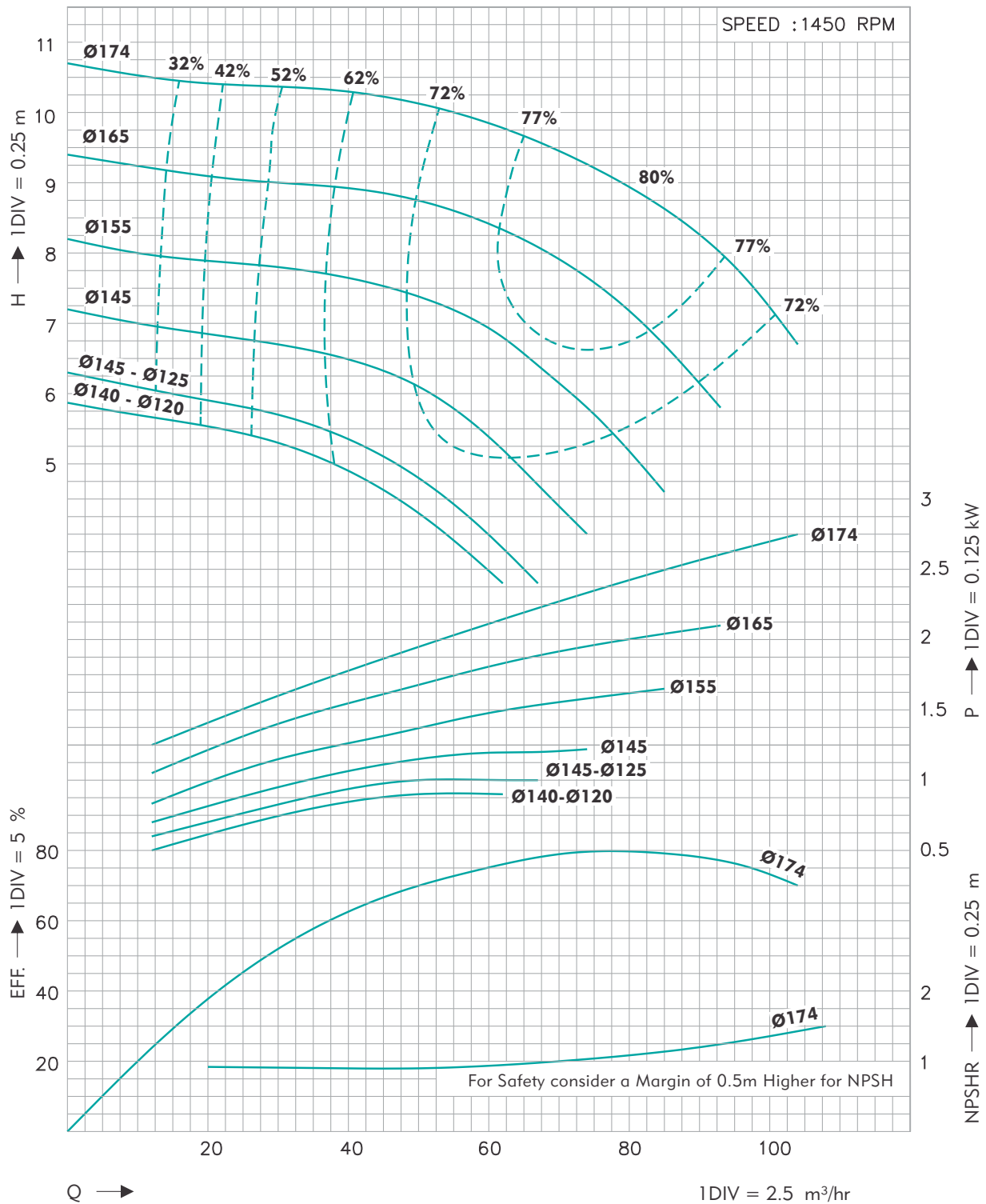


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-160**

SIZE : **100 x 80**

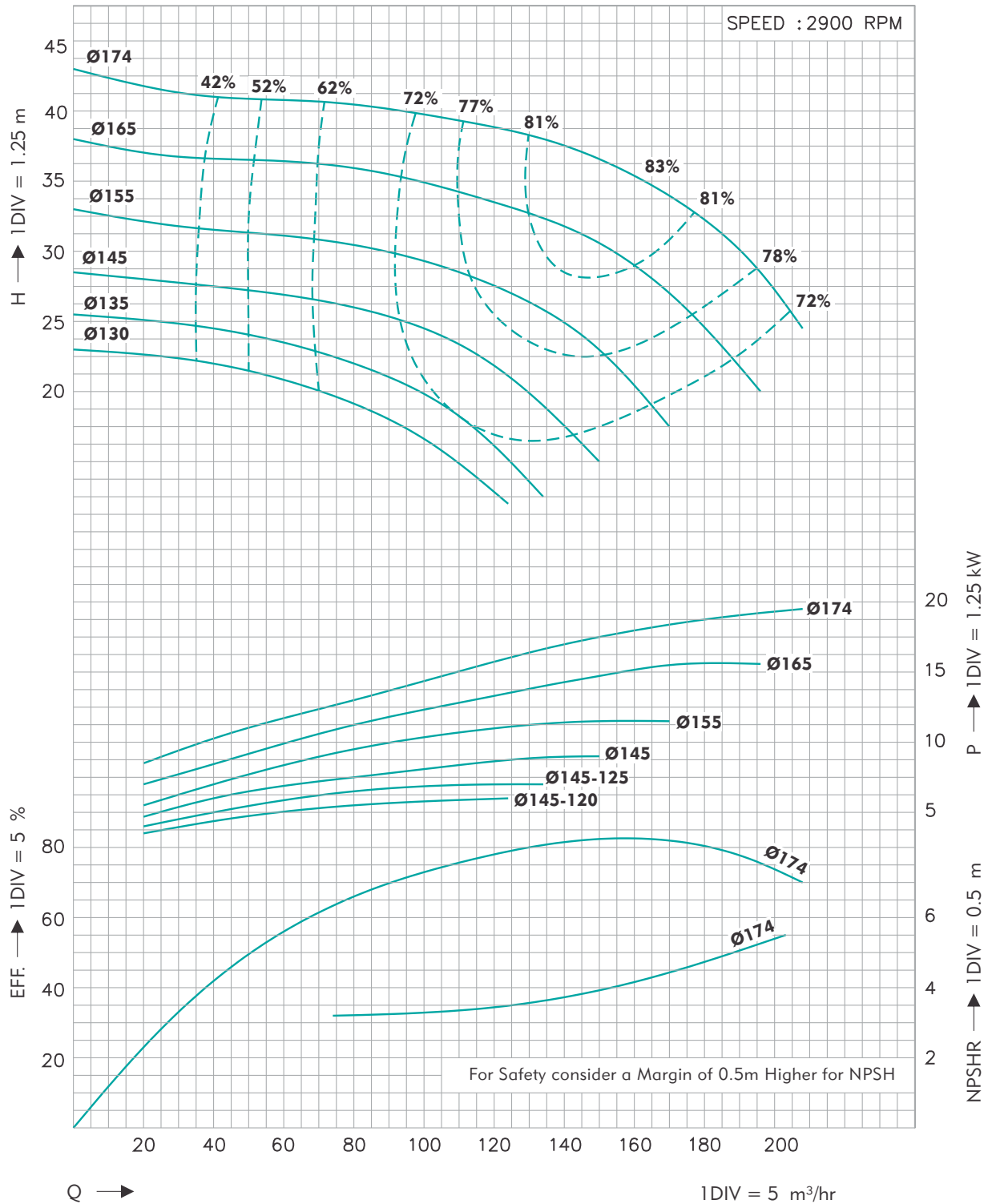


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-160**

SIZE : **100 x 80**

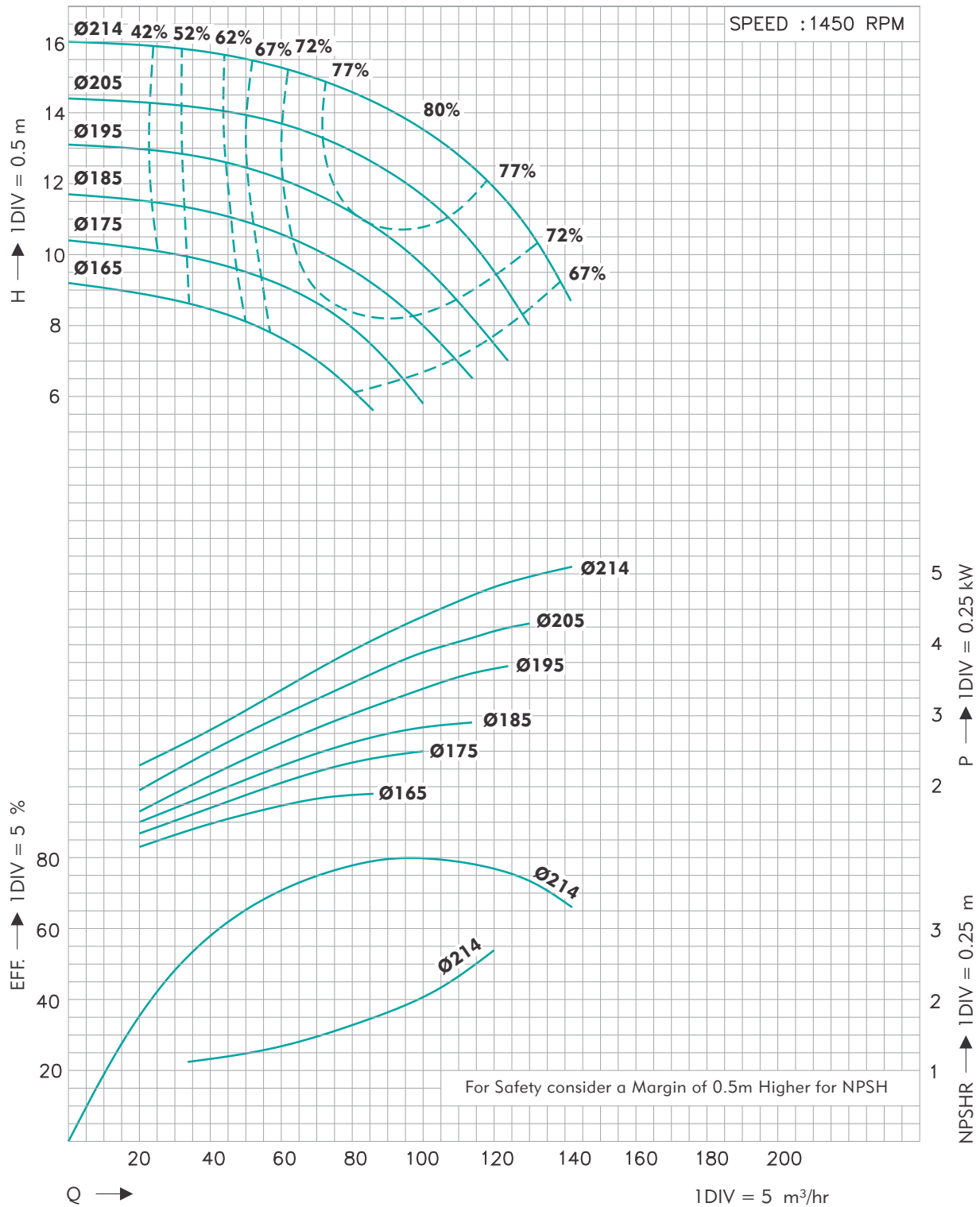


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-200**

SIZE : **100 x 80**

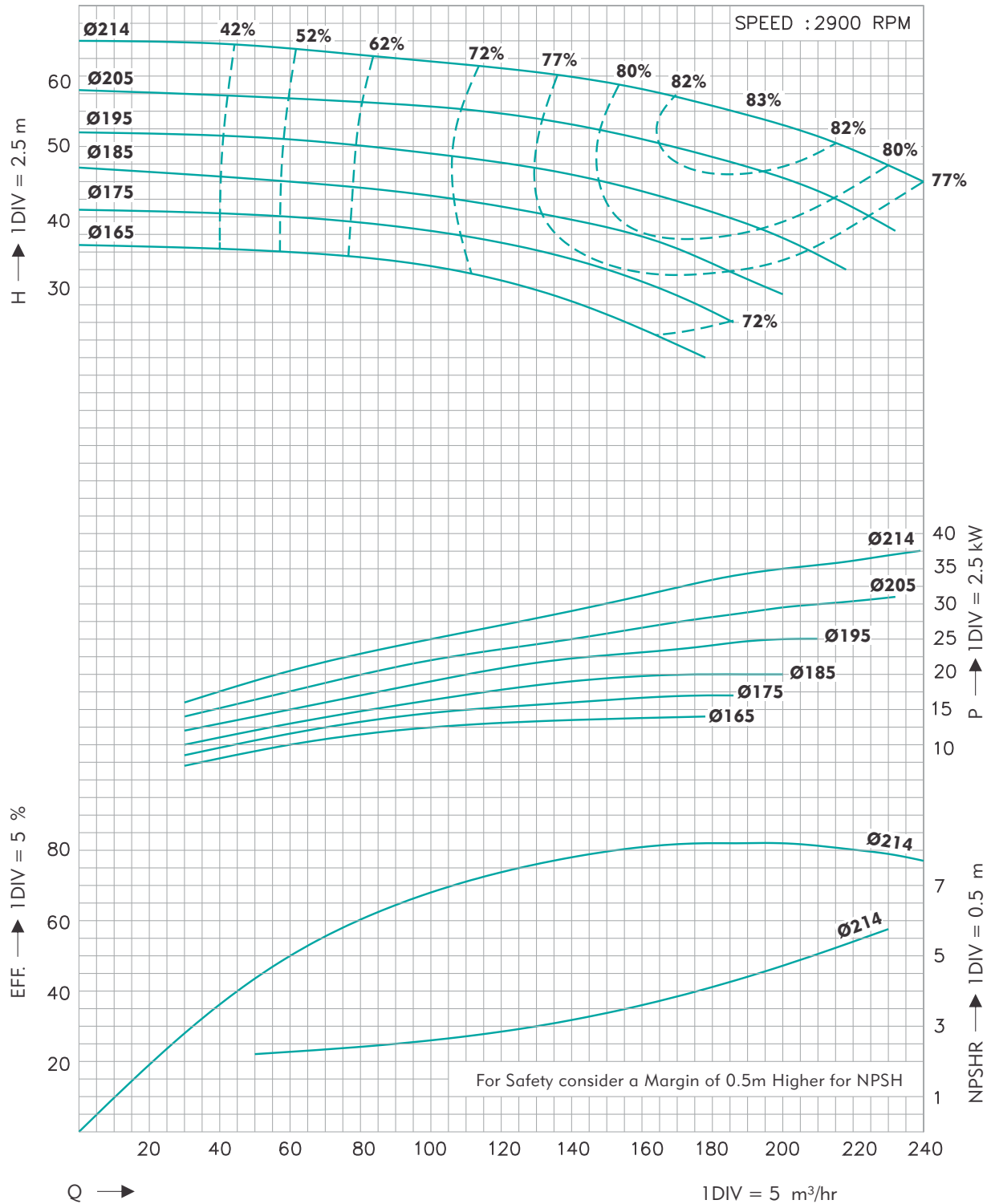


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-200**

SIZE : **100 x 80**

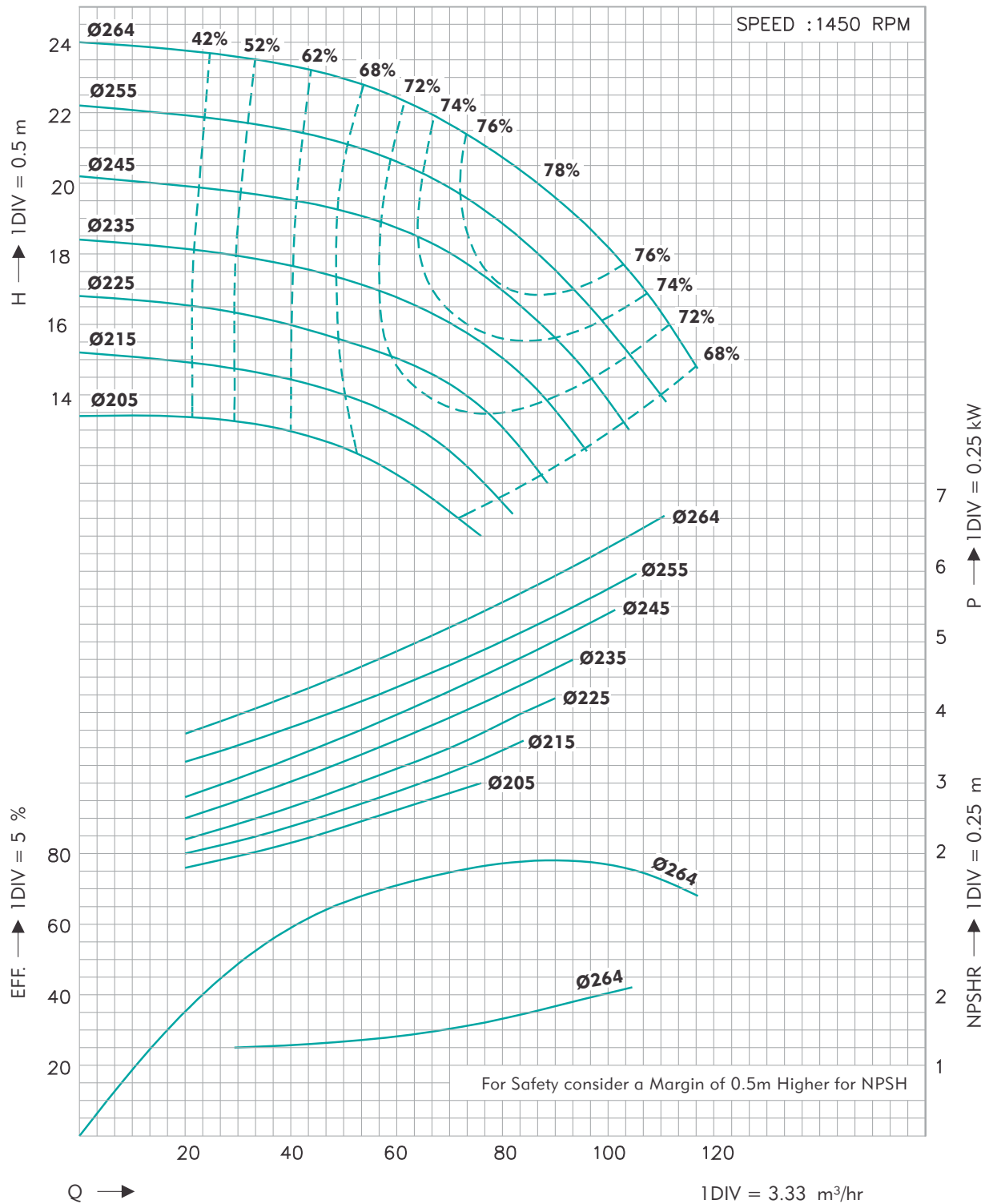


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-260**

SIZE : **100 x 80**

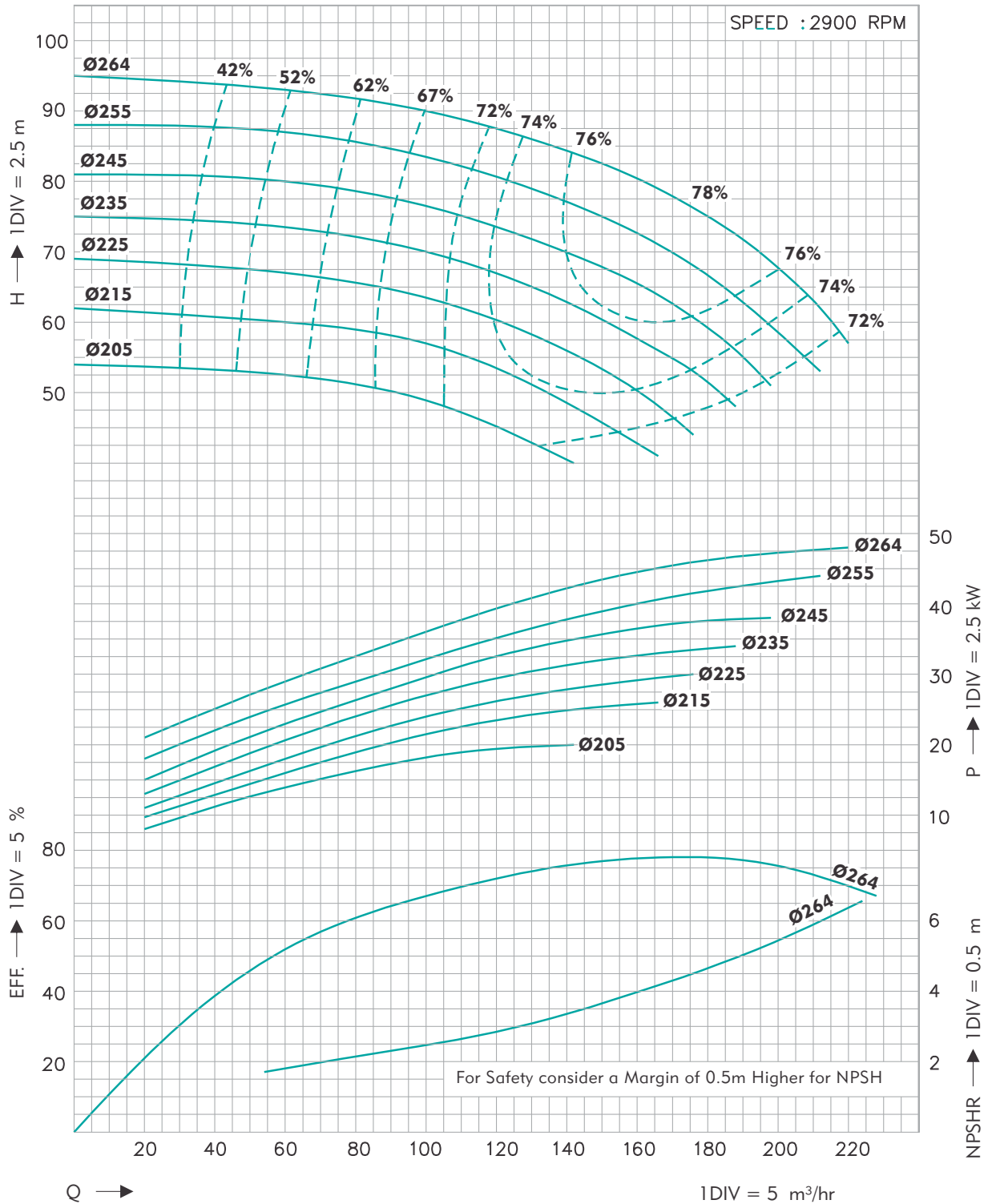


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-260**

SIZE : **100 x 80**

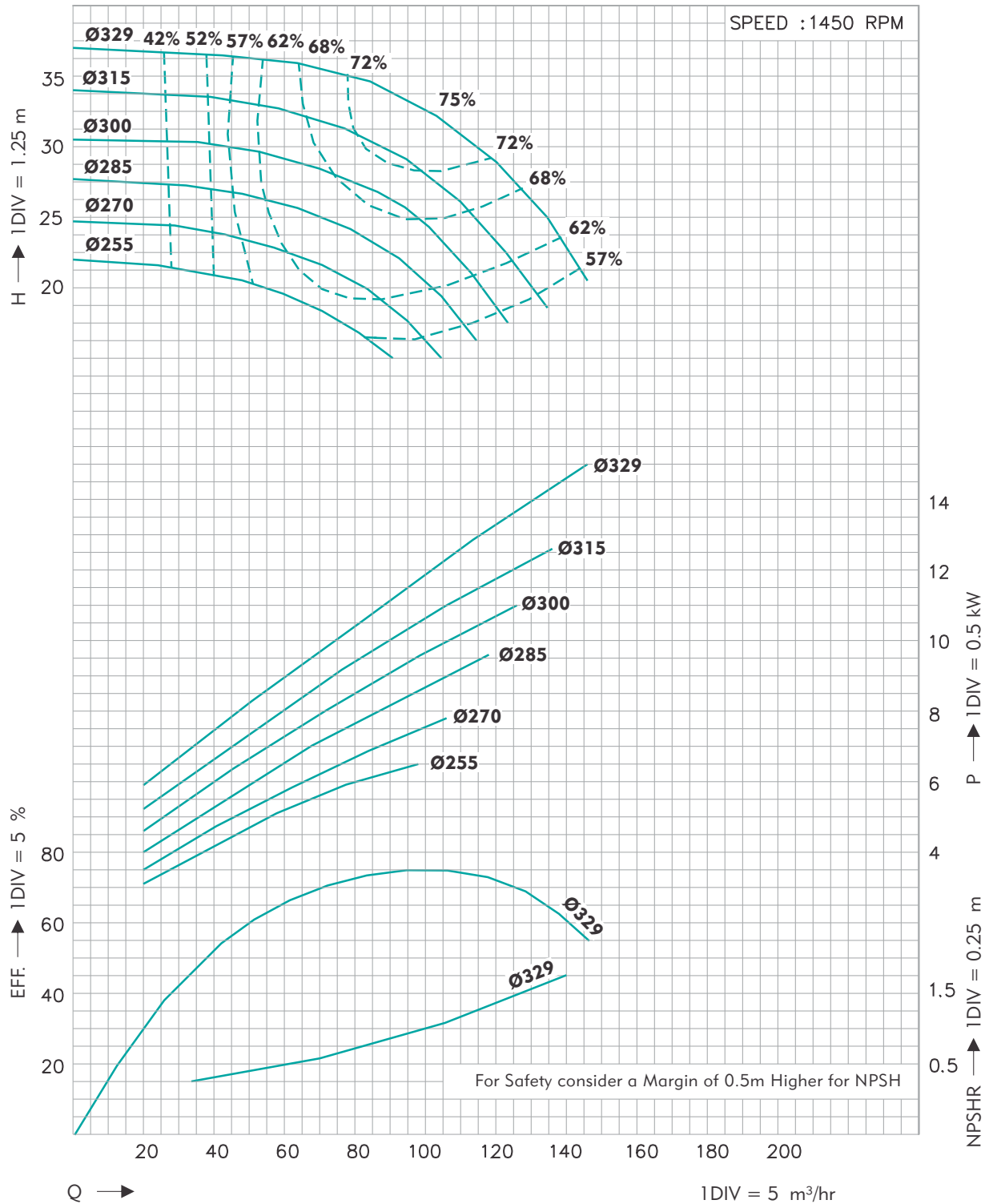


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-320**

SIZE : **100 x 80**

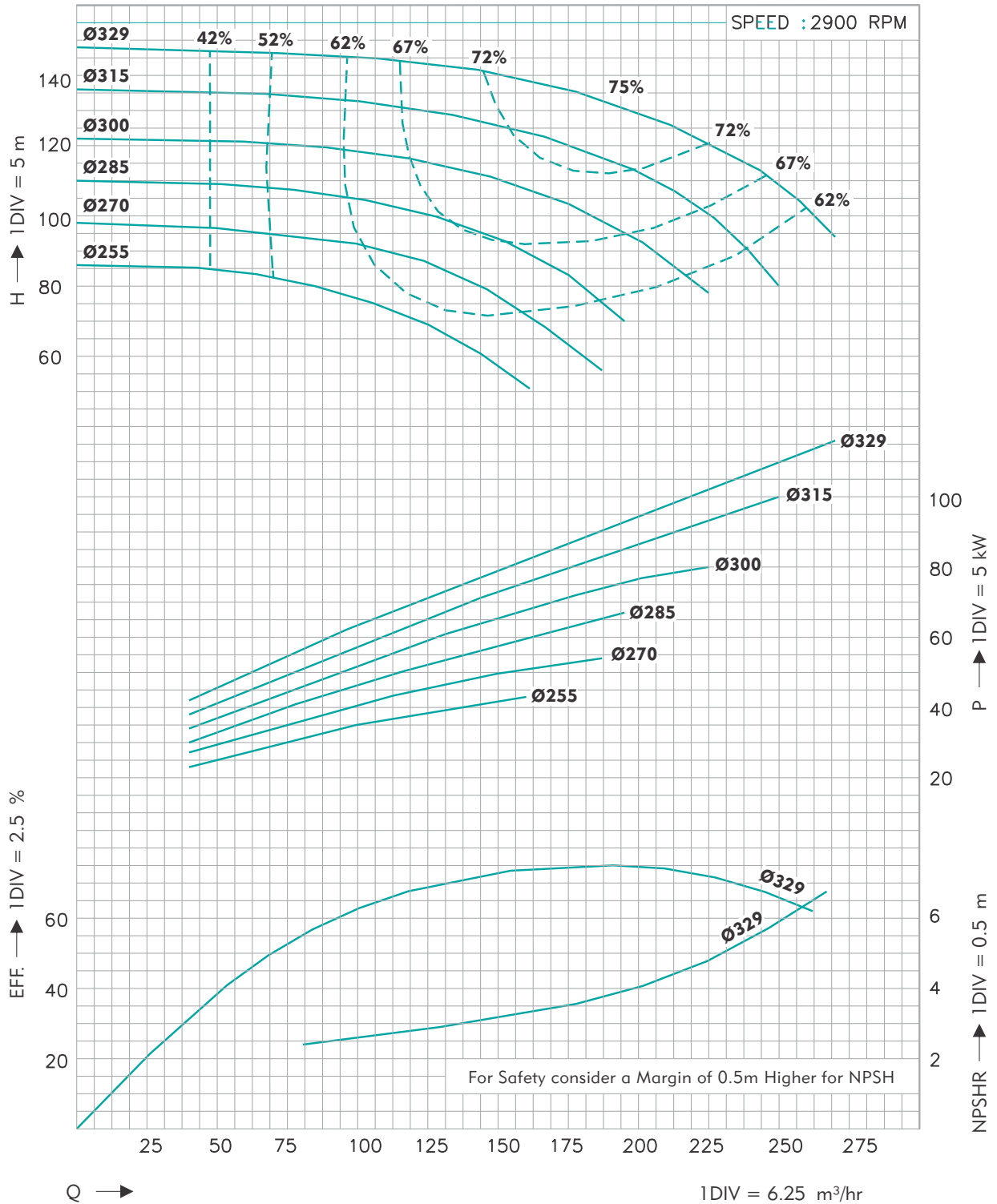


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-320** - On request

SIZE : **125 x 80**

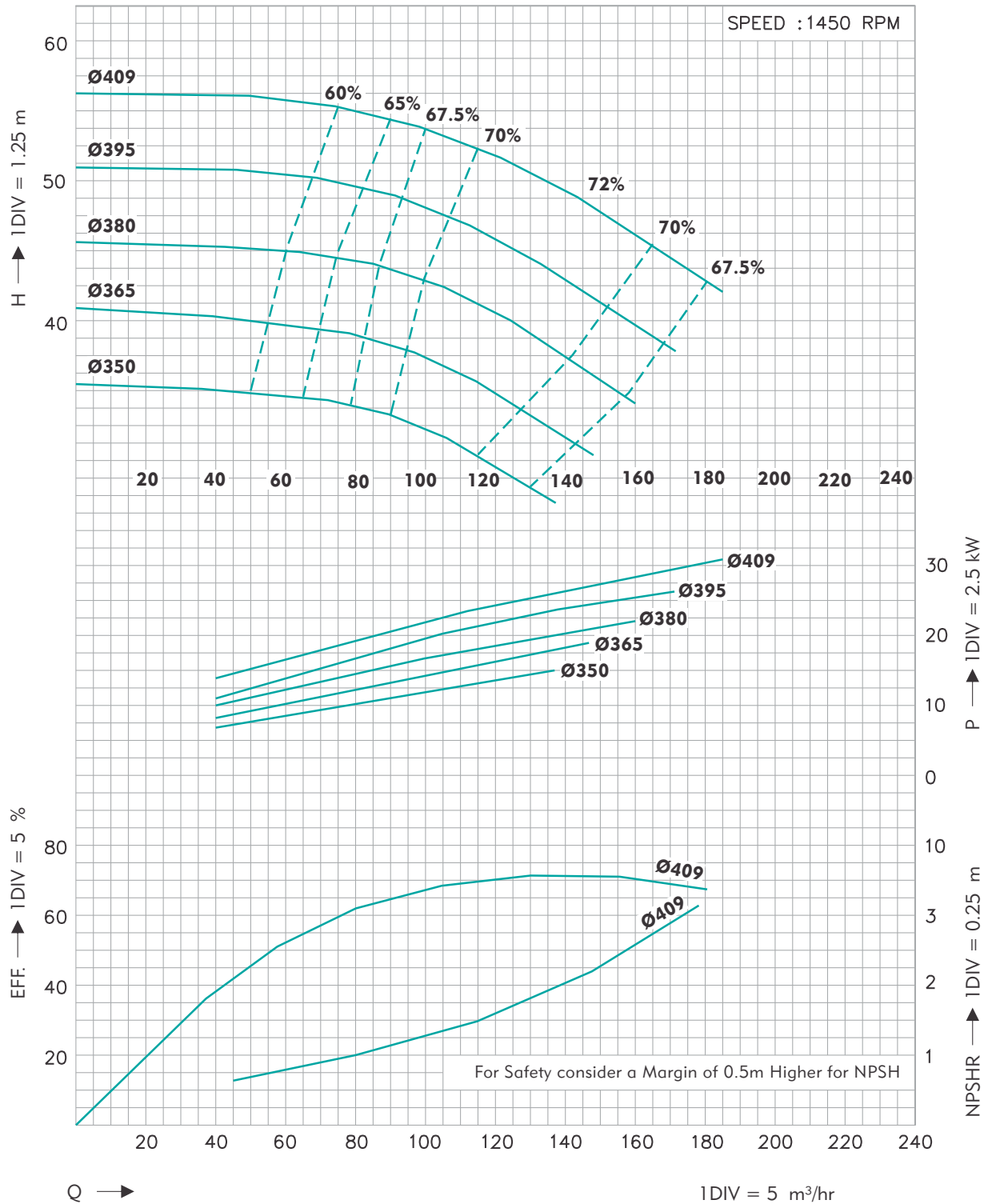


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-80-400**

SIZE : **125 x 80**

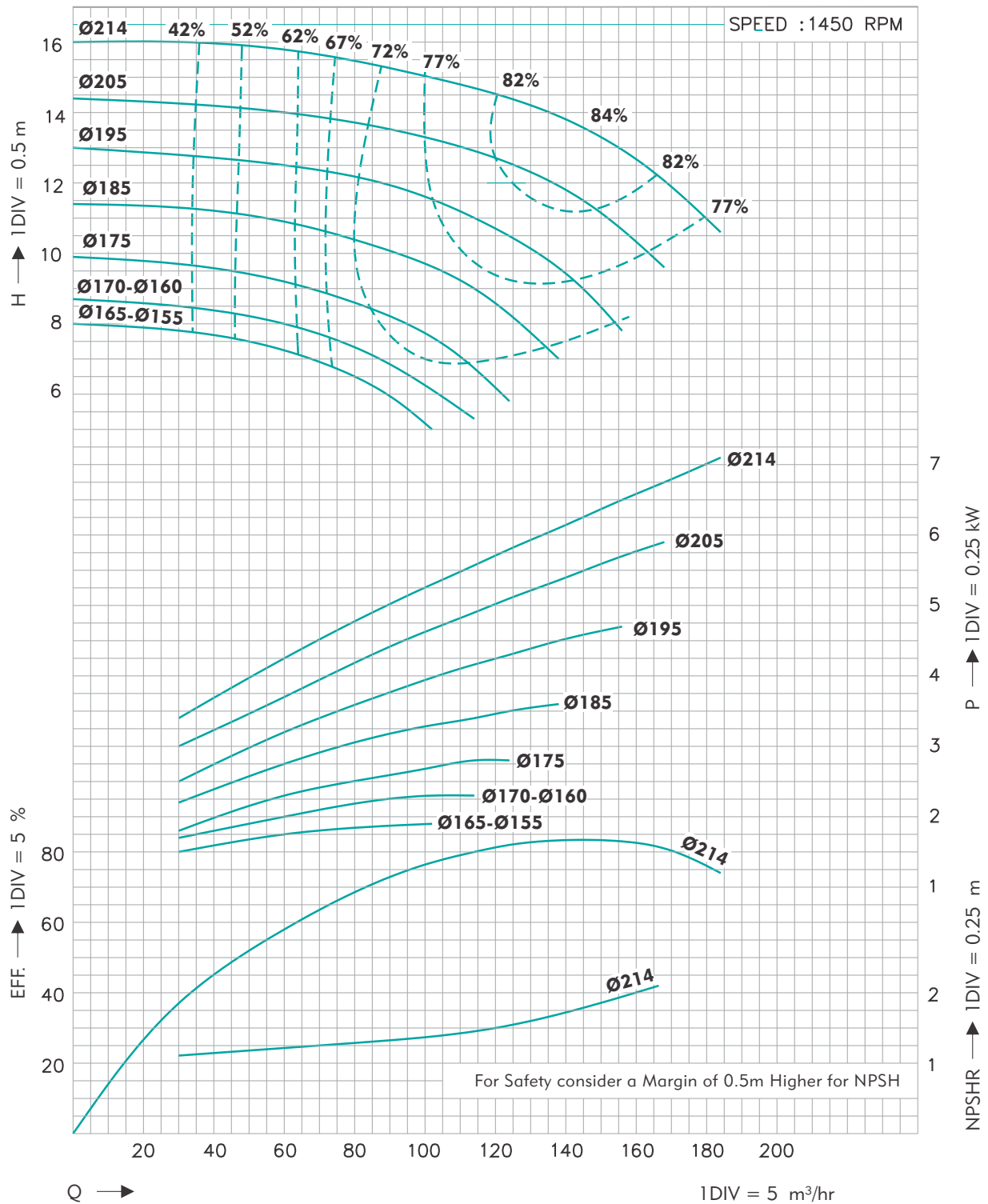


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-200**

SIZE : **125 x 100**

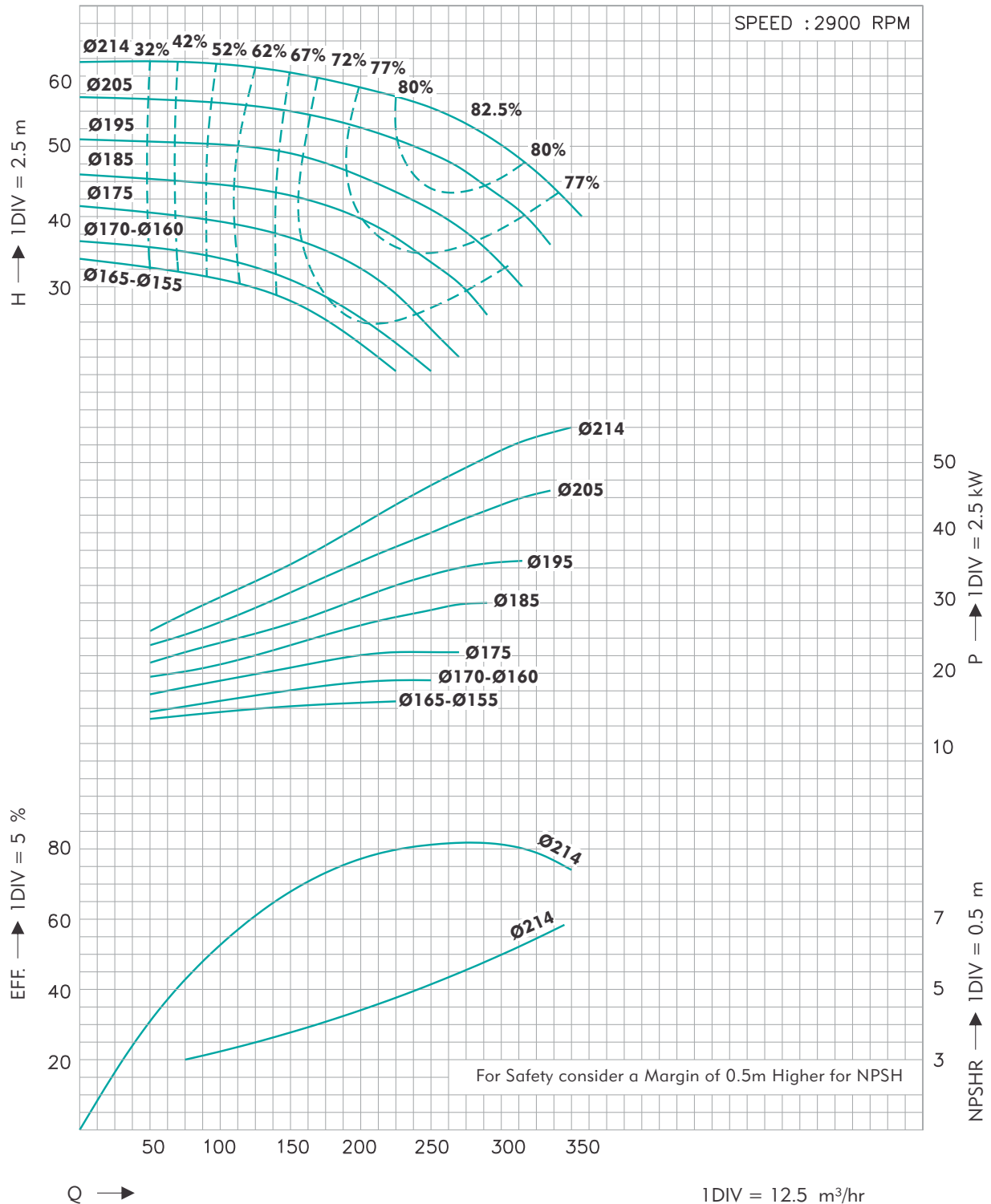


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-200**

SIZE : **125 x 100**

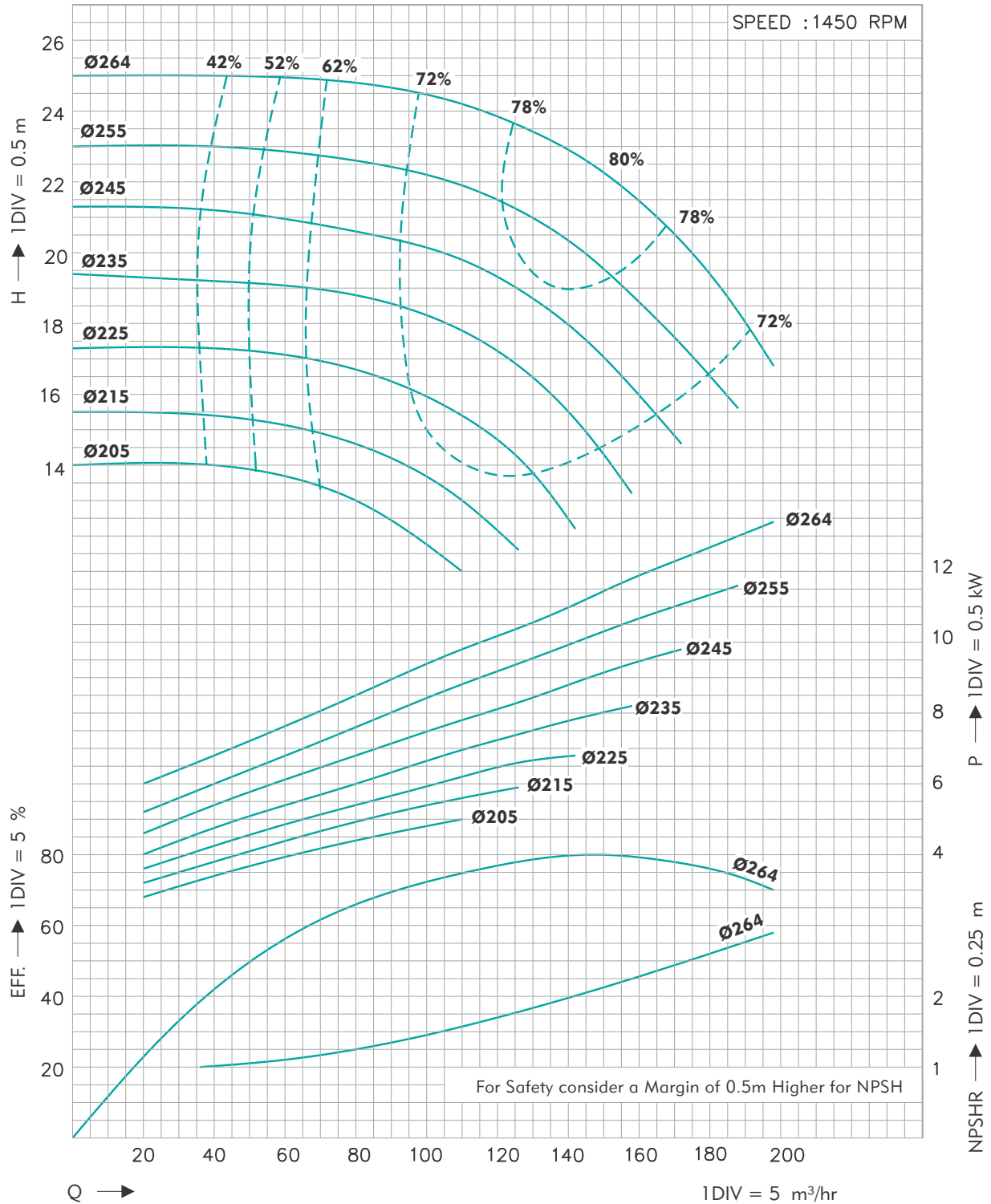


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-260**

SIZE : **125 x 100**

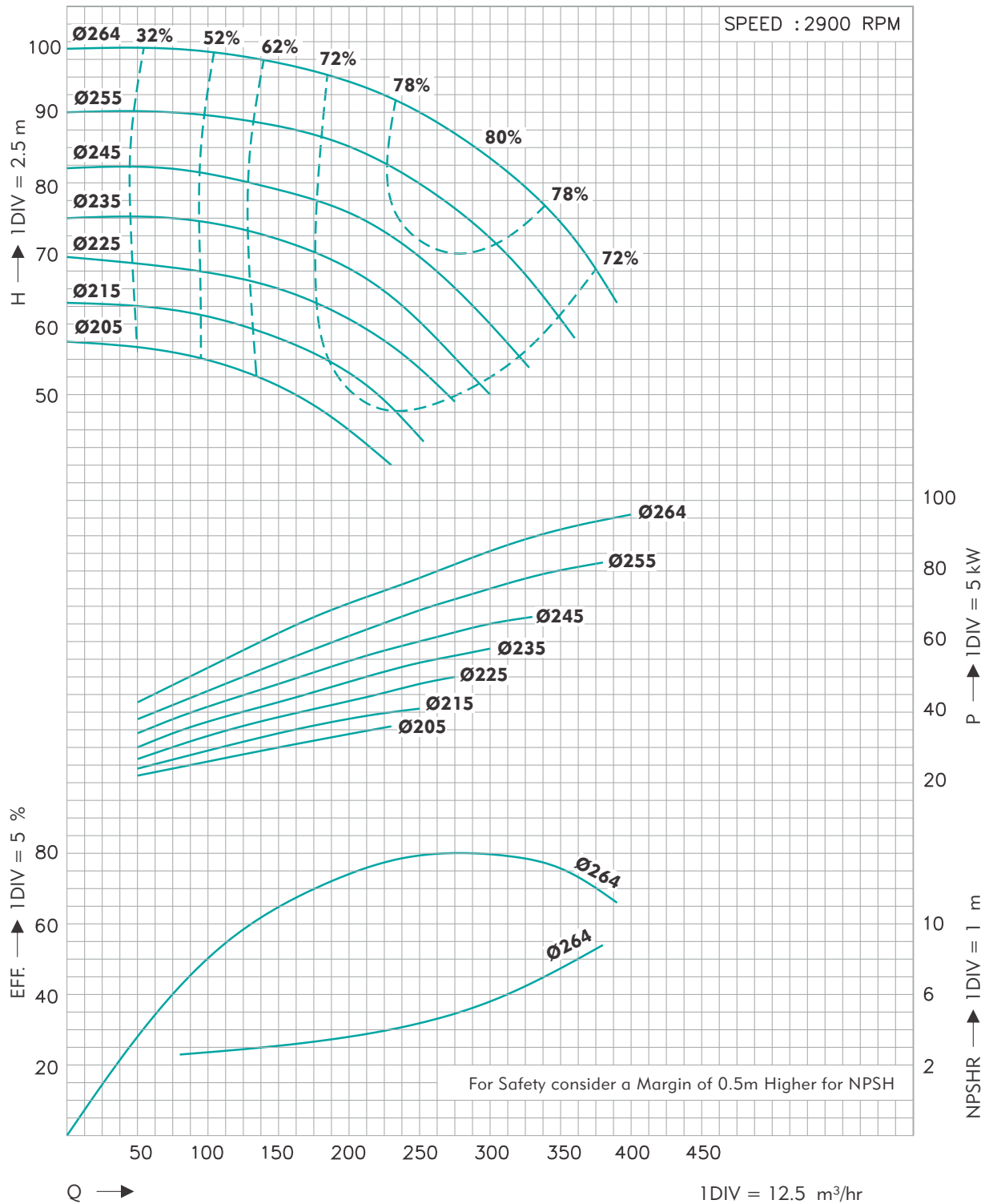


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-260**

SIZE : **125 x 100**

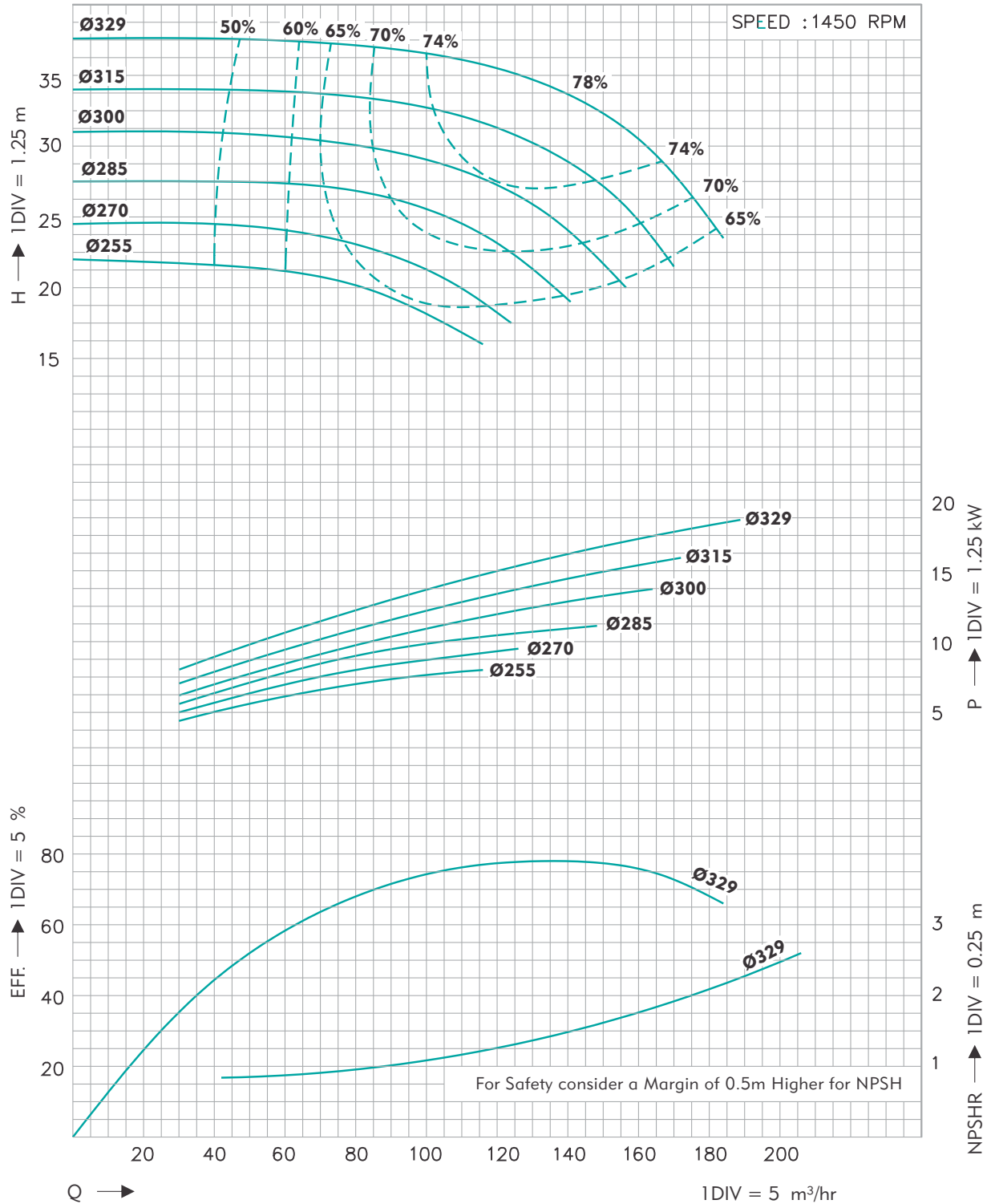


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-320**

SIZE : **125 x 100**

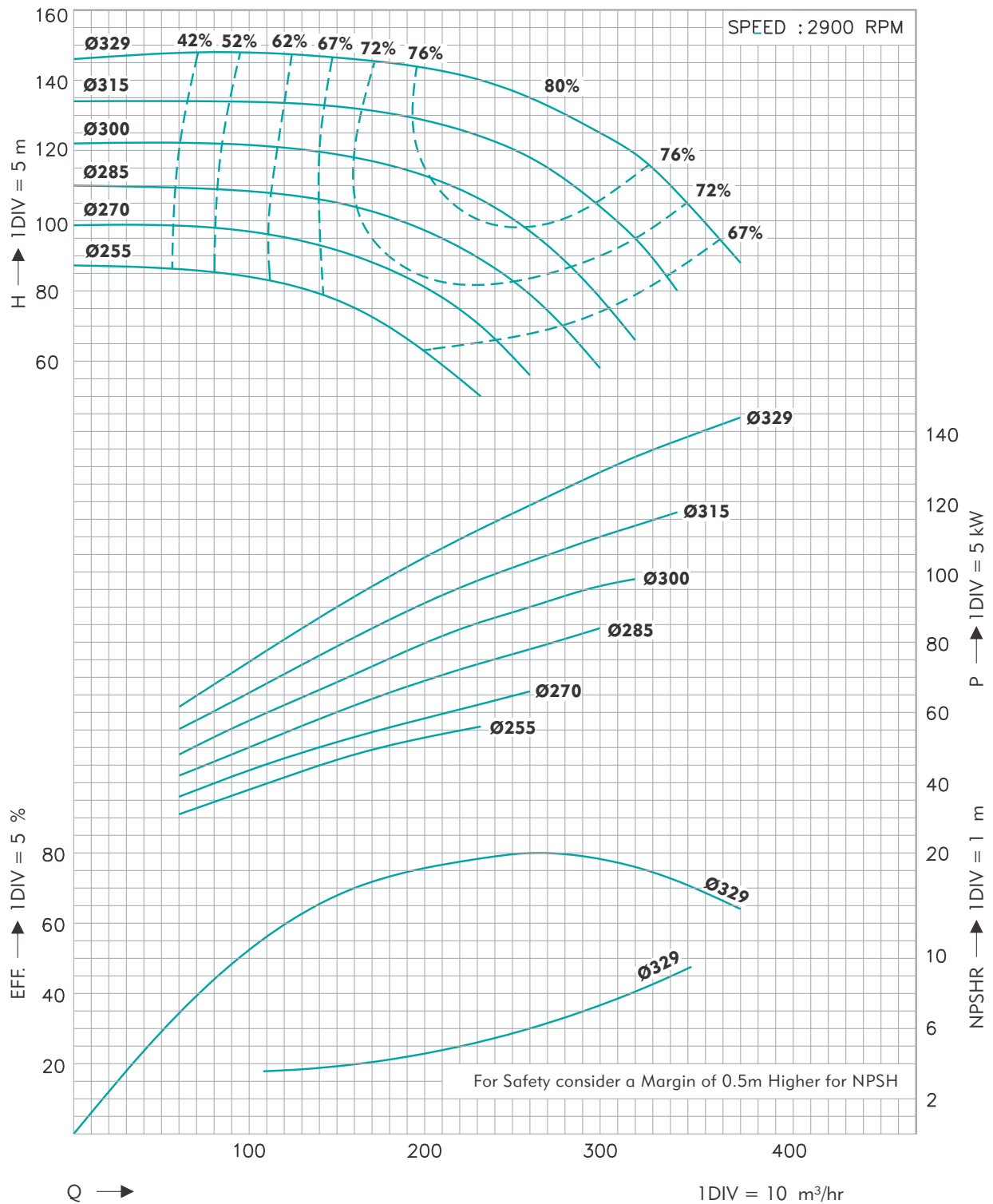


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-320** - On request

SIZE : **125 x 100**

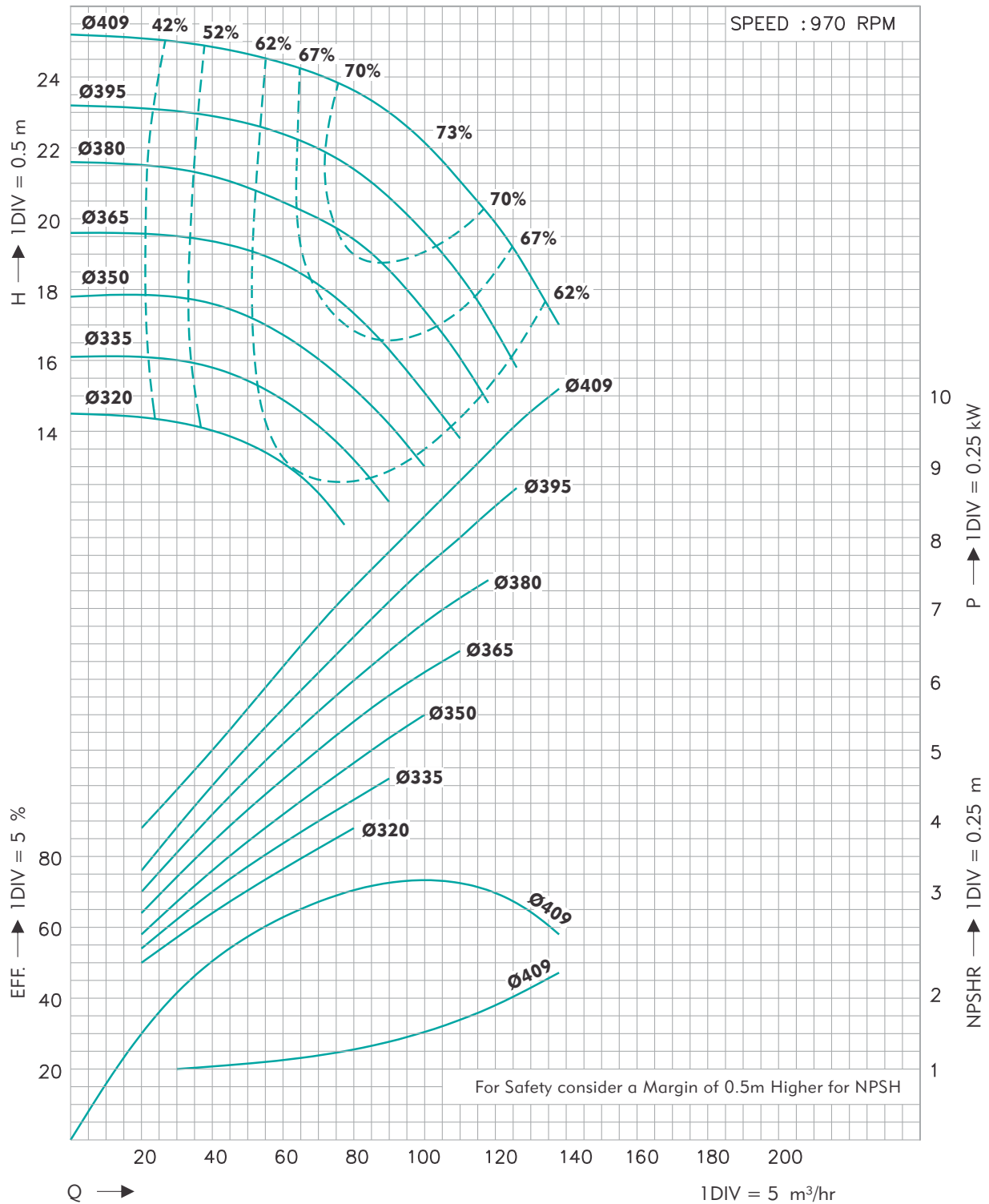


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-400**

SIZE : **125 x 100**

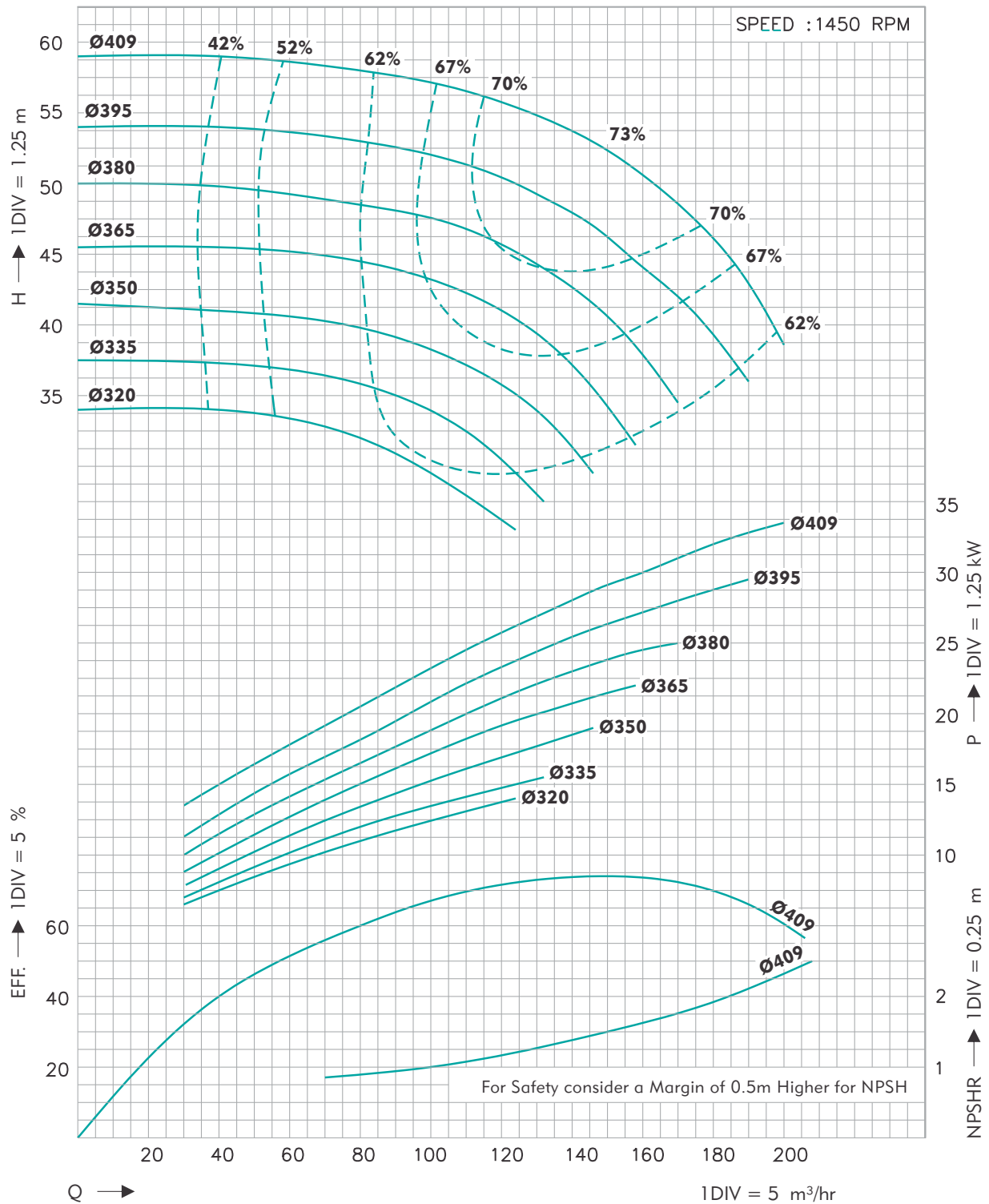


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-100-400**

SIZE : **125 x 100**

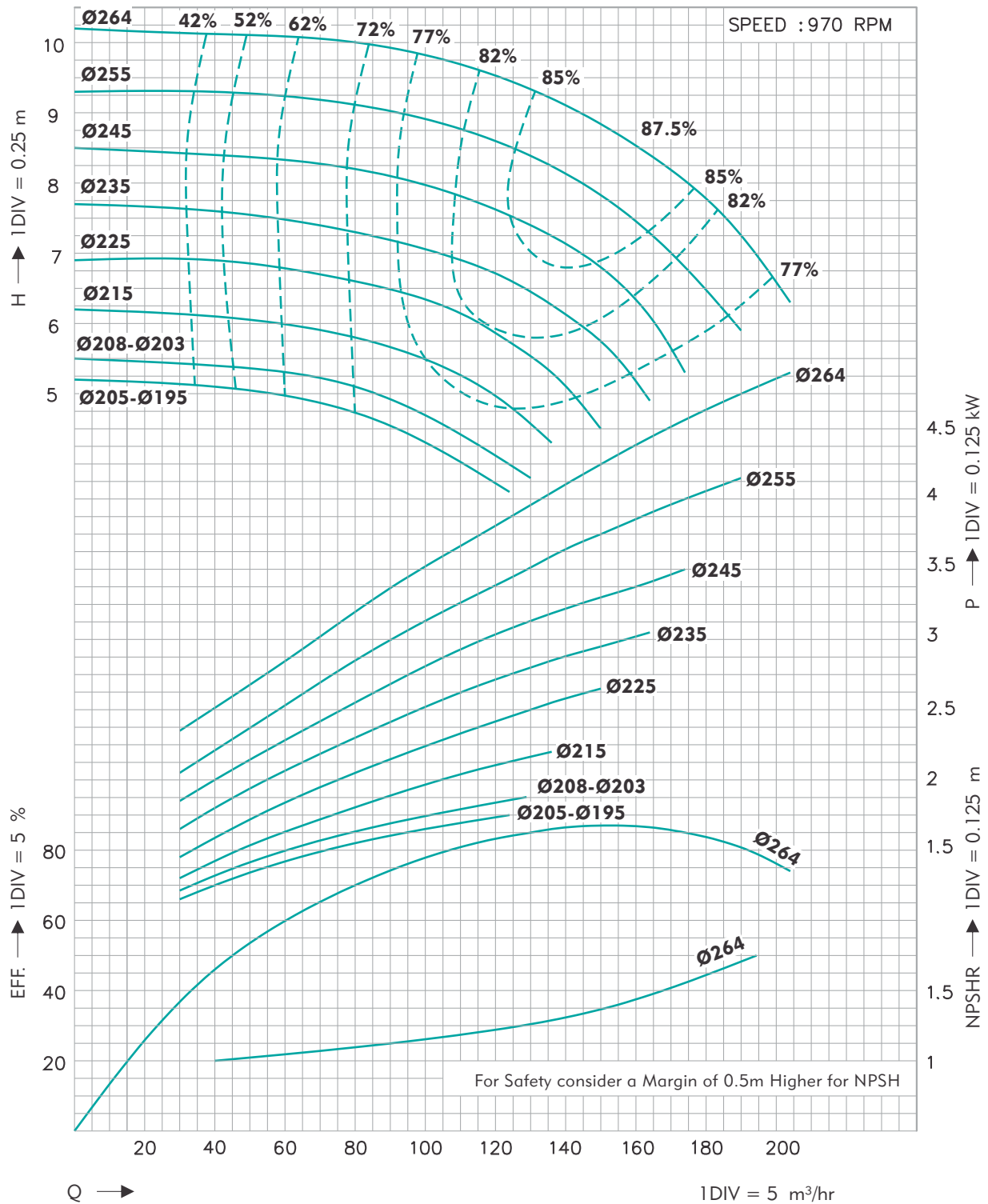


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-125-260**

SIZE : **150 x 125**

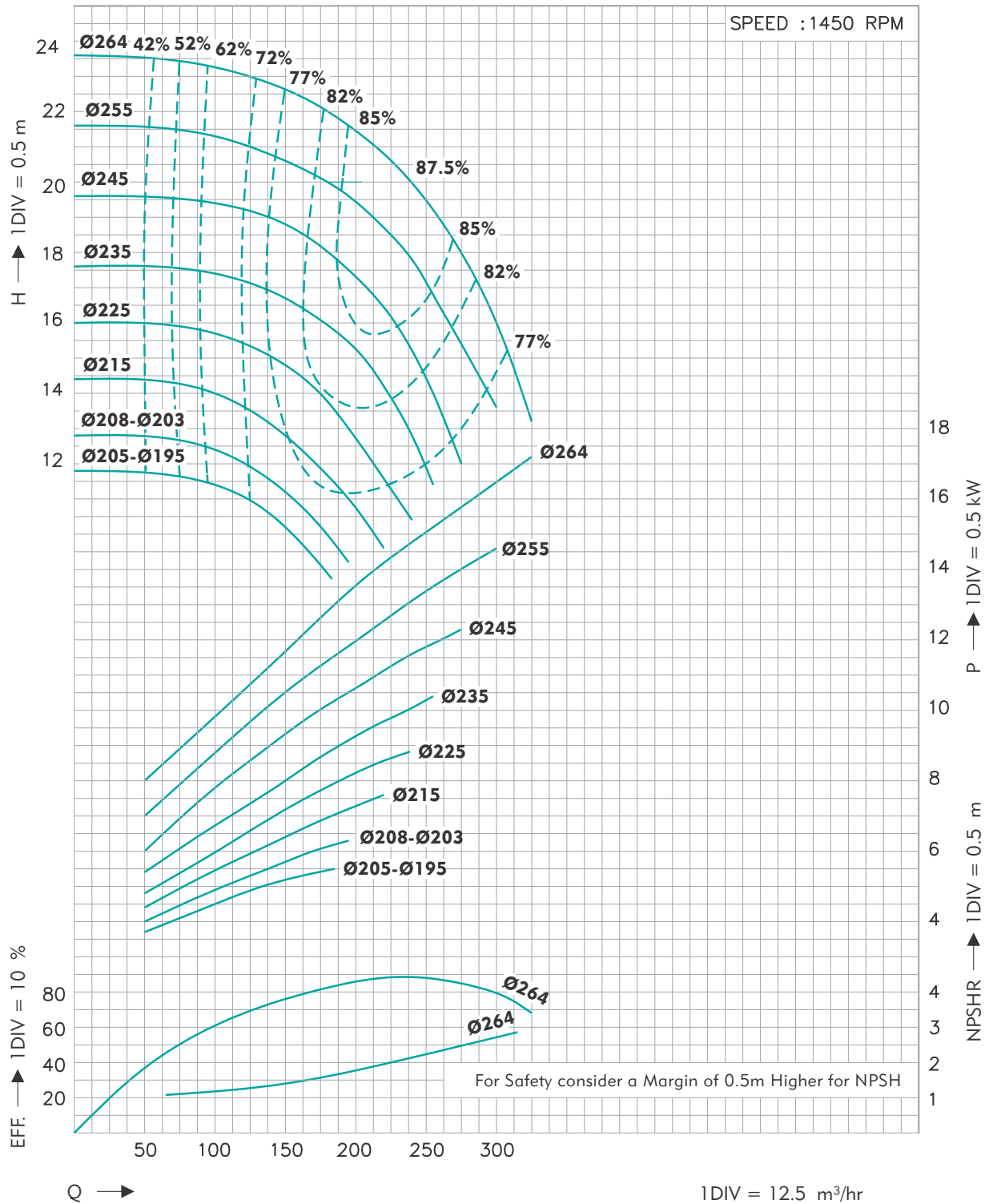


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-125-260**

SIZE : **150 x 125**

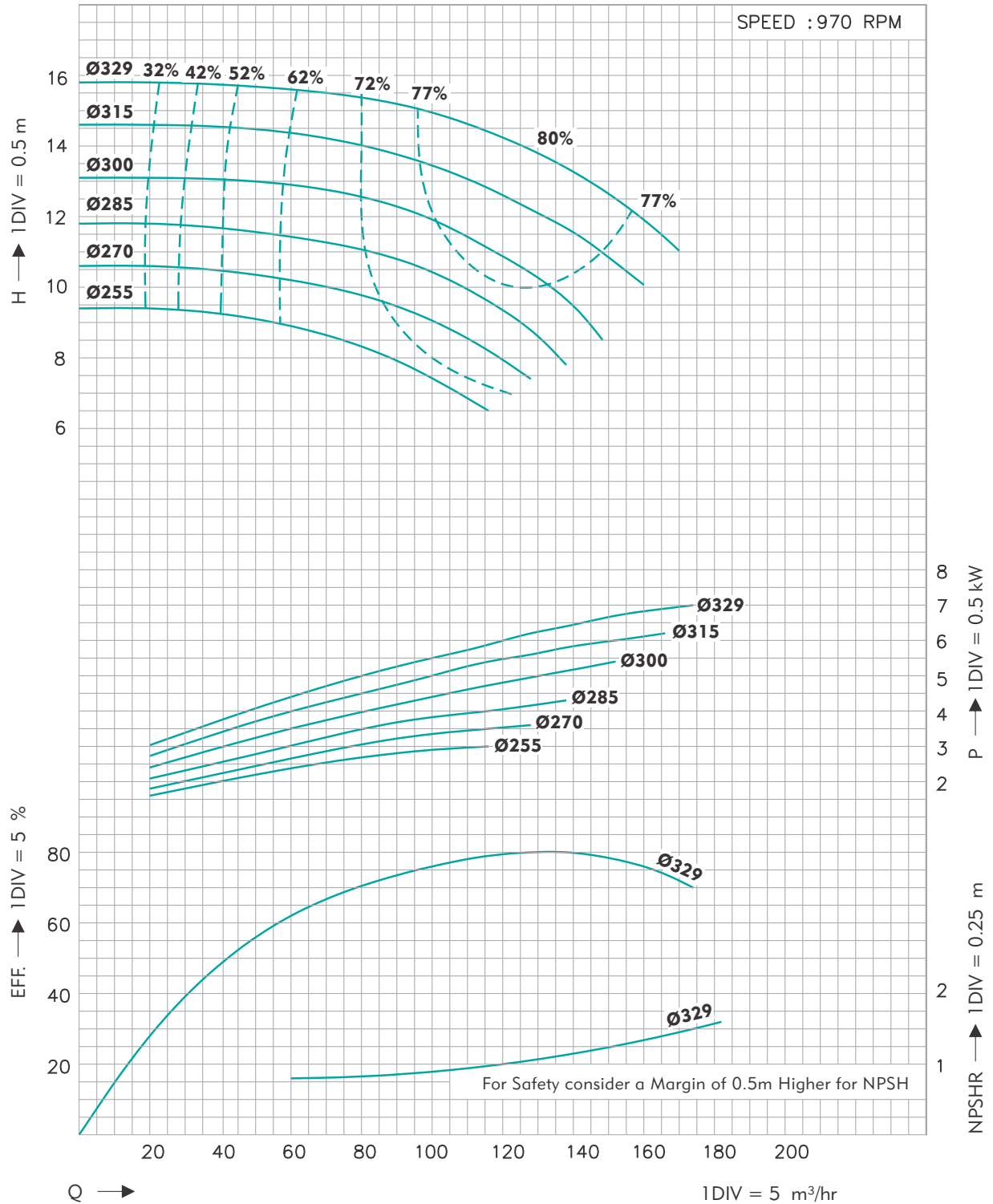


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-125-320**

SIZE : **150 x 125**

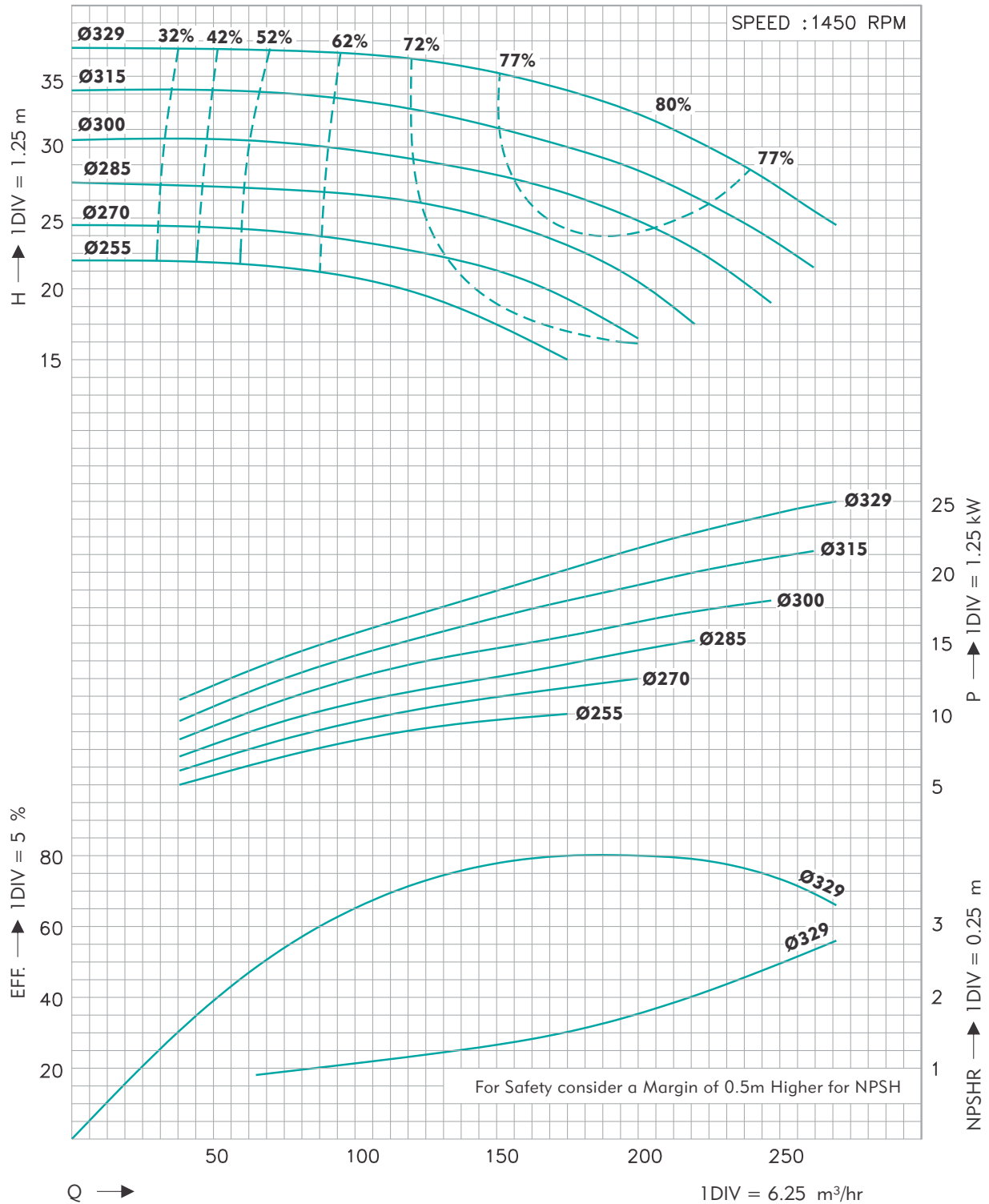


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-125-320**

SIZE : **150 x 125**

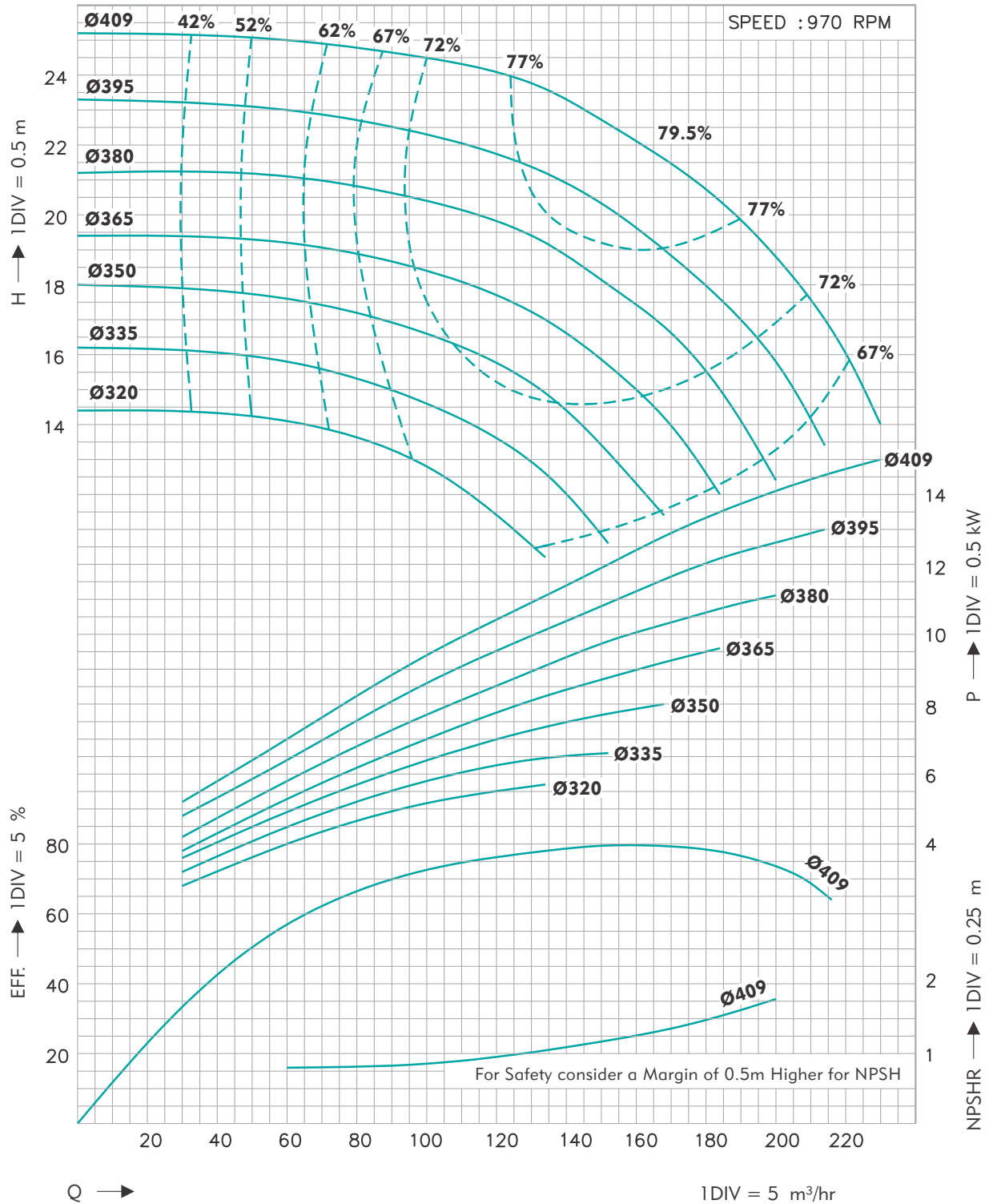


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-125-400**

SIZE : **150 x 125**

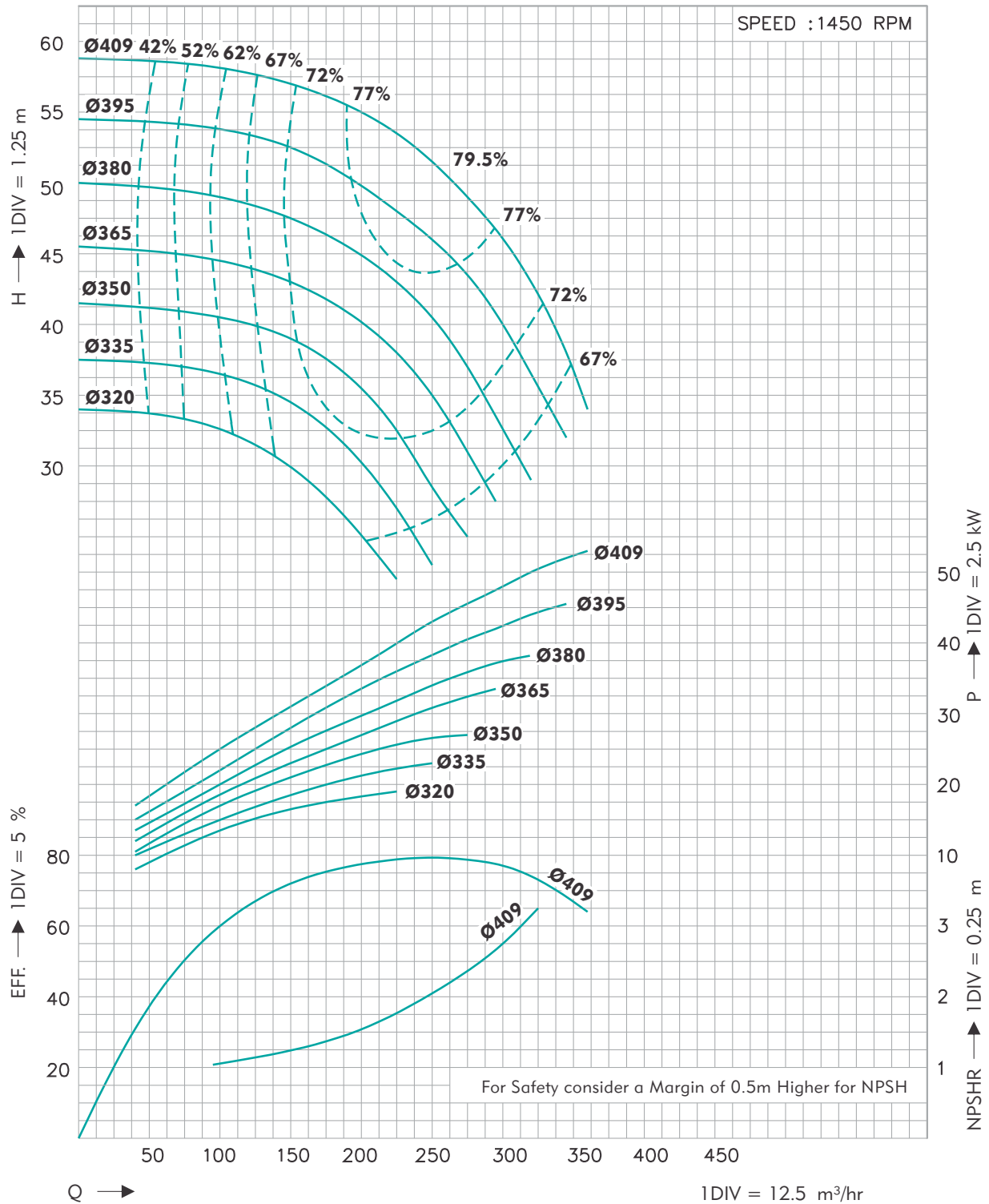


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-125-400**

SIZE : **150 x 125**

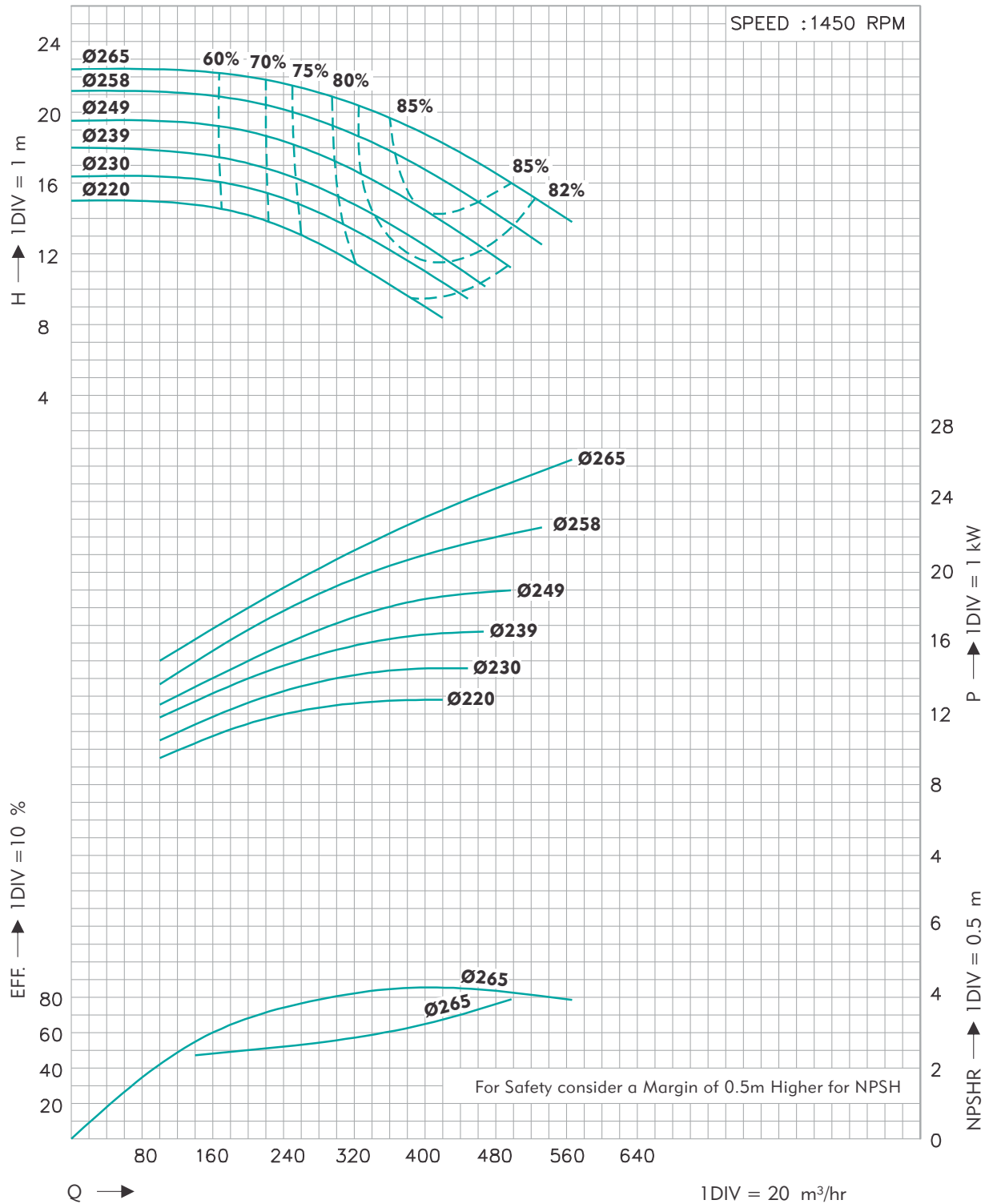


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-150-260**

SIZE : **200 x 150**

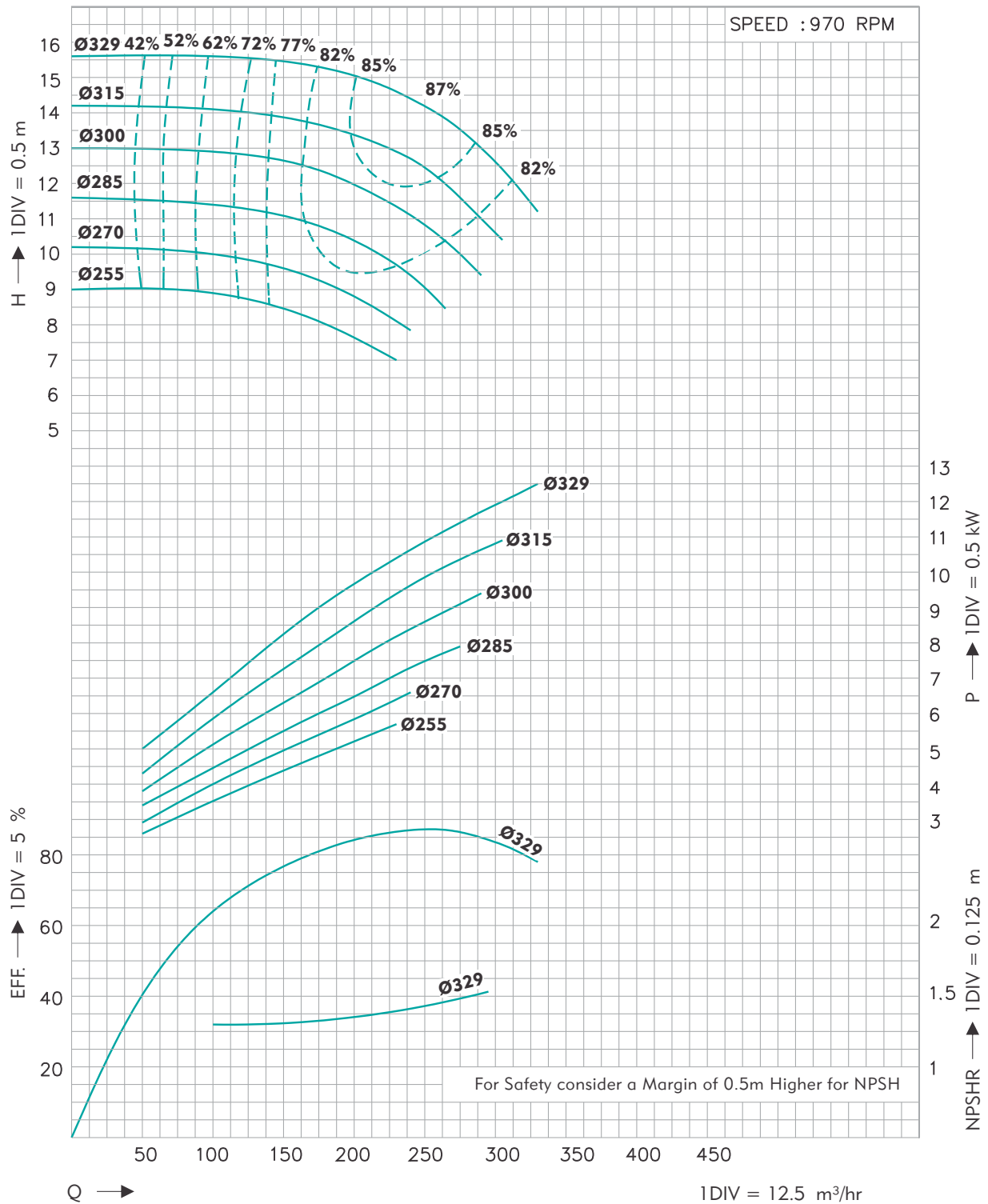


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-150-320**

SIZE : **200 x 150**

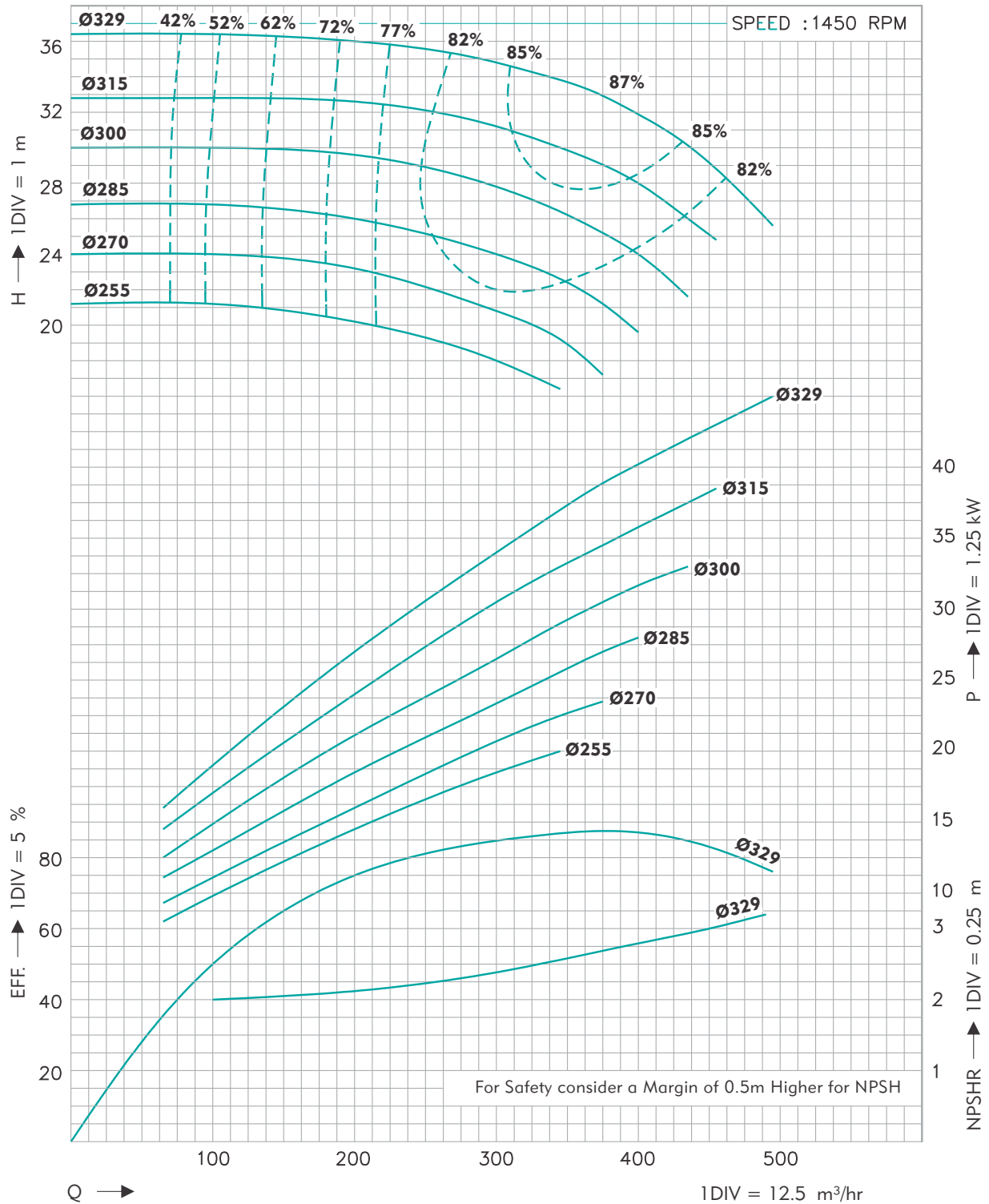


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-150-320**

SIZE : **200 x 150**

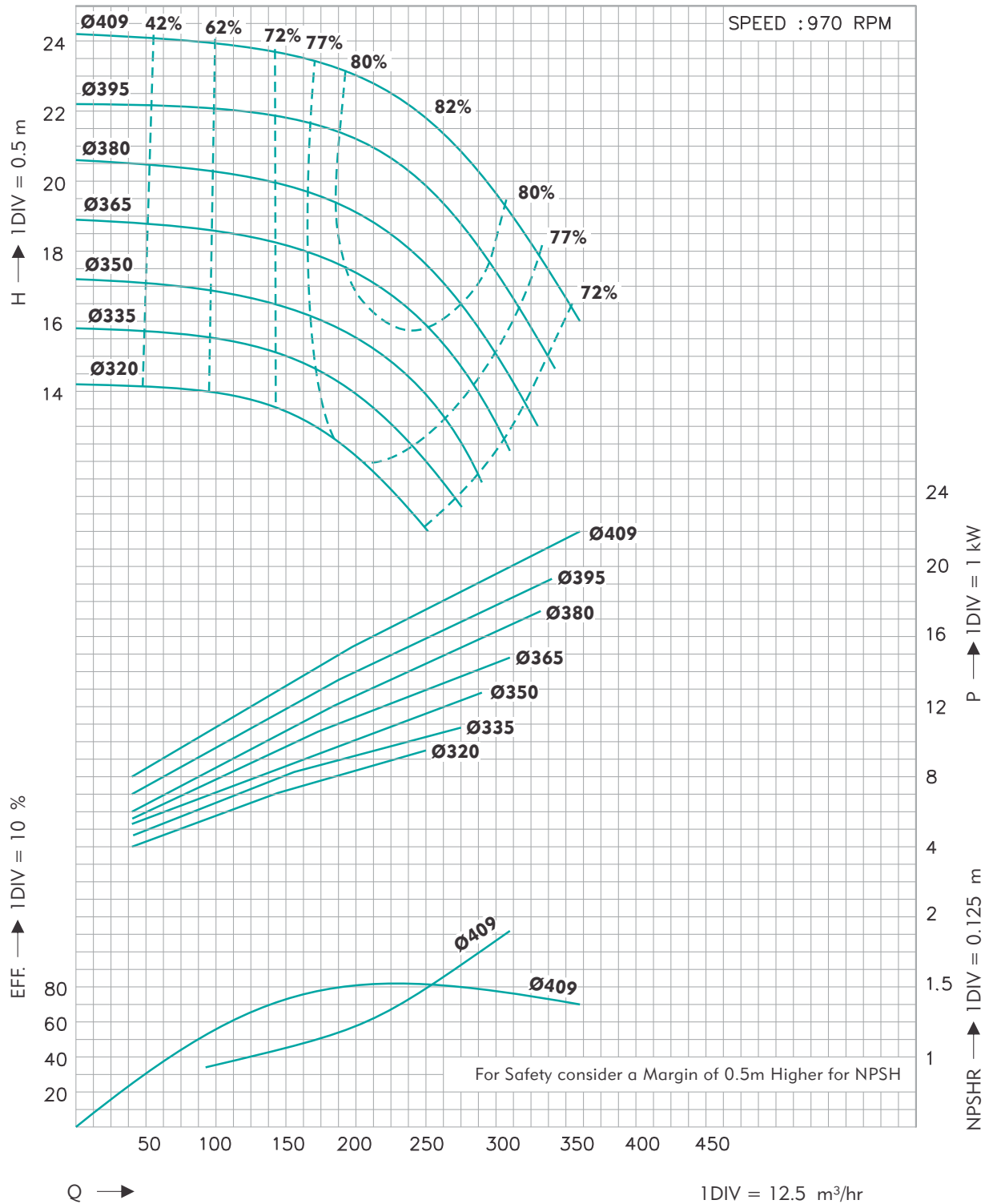


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-150-400**

SIZE : **200 x 150**

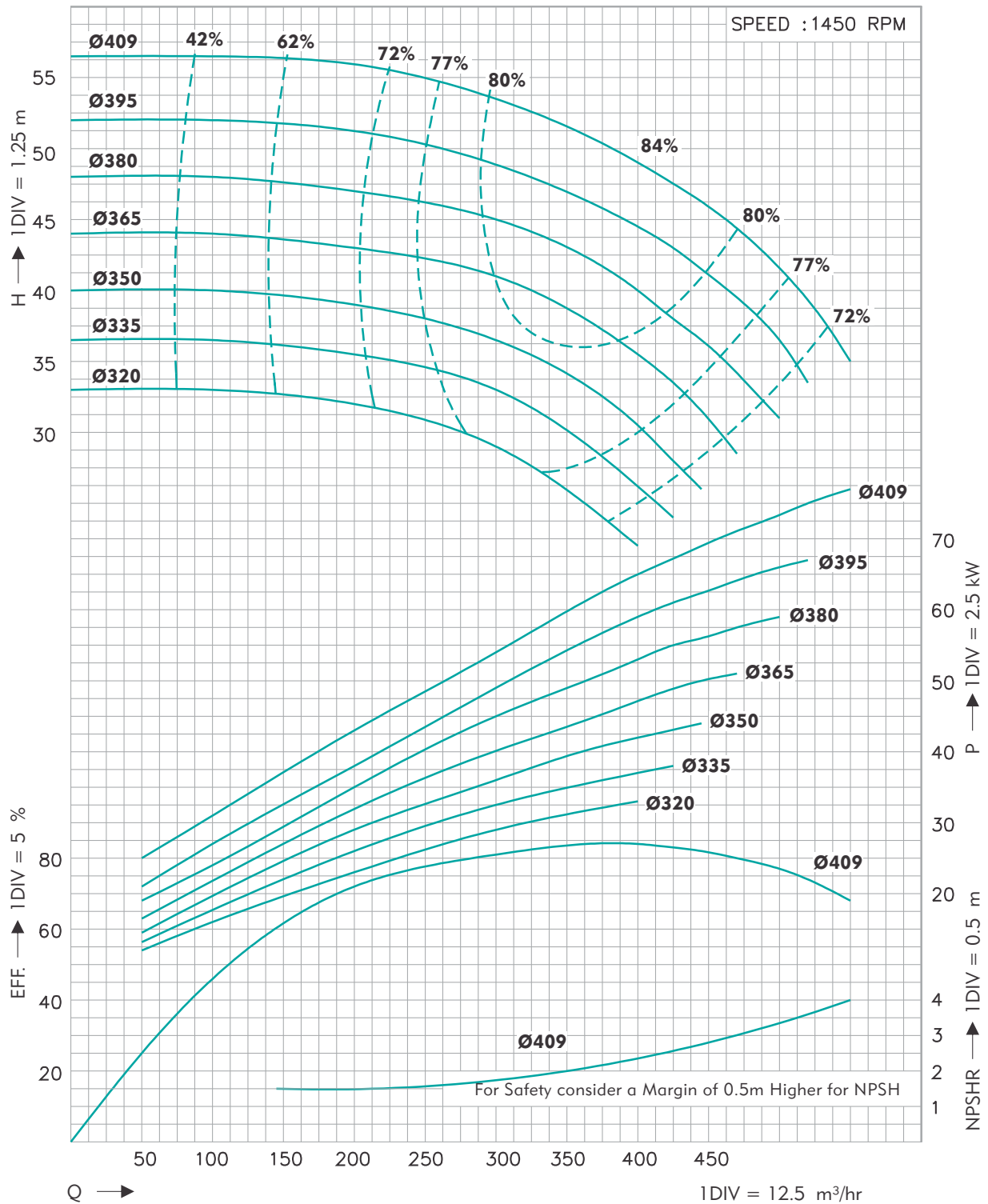


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEH-150-400**

SIZE : **200 x 150**



Note : Performance curve are as per specific gravity and viscosity of water.

GENERAL DATA

END SUCTION CENTRIFUGAL MIXED FLOW PUMPS

Construction

Tormac End suction mixed flow pumps are horizontal single stage volute casing pumps with discharge port are tangentially vertical/horizontal. These pumps features horizontal shaft components with axial suction and impellers are designed and radial discharge ports. Pumps volute chamber and impellers are carefully designed to give the best possible and suction lift characteristics.

Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw material, dynamically balanced impellers, seal and bearings to ensure long life.



Applications

- Water supply
- Irrigation
- Pressure boosting
- Fire protection
- Heating and air conditioning systems
- Circulation and transfer of clean, chemically non-aggressive water & liquids
- General industrial services
- Water supply to swimming pool, fountains.
- Dewatering
- Pumping sea water
- Sugar Industry

Features

- Designed to allow interchangeability of their component between all individual pump sizes.
- Minimizes shaft deflection maximizes bearing and mechanical seal life.
- Heavy duty bearing ensures long life.
- Back pull out design facilitates dismantling the pump without disconnecting the pump casing from the pipes.
- Dimensions and characteristics according to DIN 24255 standards.
- Available both in mechanical seal and soft packed stuffing box design.

GENERAL DATA

Operating Limits

Outlet size range	NB200 to 450mm
Flow range	Upto 3600 m ³ /h
Total Head range	Upto 45m
Operating temperature with soft packed stuffing box	60°C
Operating temperature with mechanical seal	60°C
Maximum working pressure	16bar

Materials of Construction

Pump Parts	Type - C	Type - B	Type - S
Volute Casting	C.I	C.I	SS 304
Stuffing box	C.I	C.I	SS 304
Gland	C.I	C.I	SS 304
Suction Cover	C.I	C.I	SS 304
Impeller	C.I	BRONZE	SS 304
Pump Shaft	BS 970 En-8	BS 970 En-8	SS 304 / 316
Shaft Sleeve	SS 410	SS 410	SS 410
Lantern Ring	BS 970 En-8		
Gland Packing	TIGA		
Fasteners	BS 970 En-8		
C.I : IS 210 FG 200	BRONZE: IS 318Gr.2		
AISI 410 : Bar stock Stainless Steel ASTM A.743 Type 410			

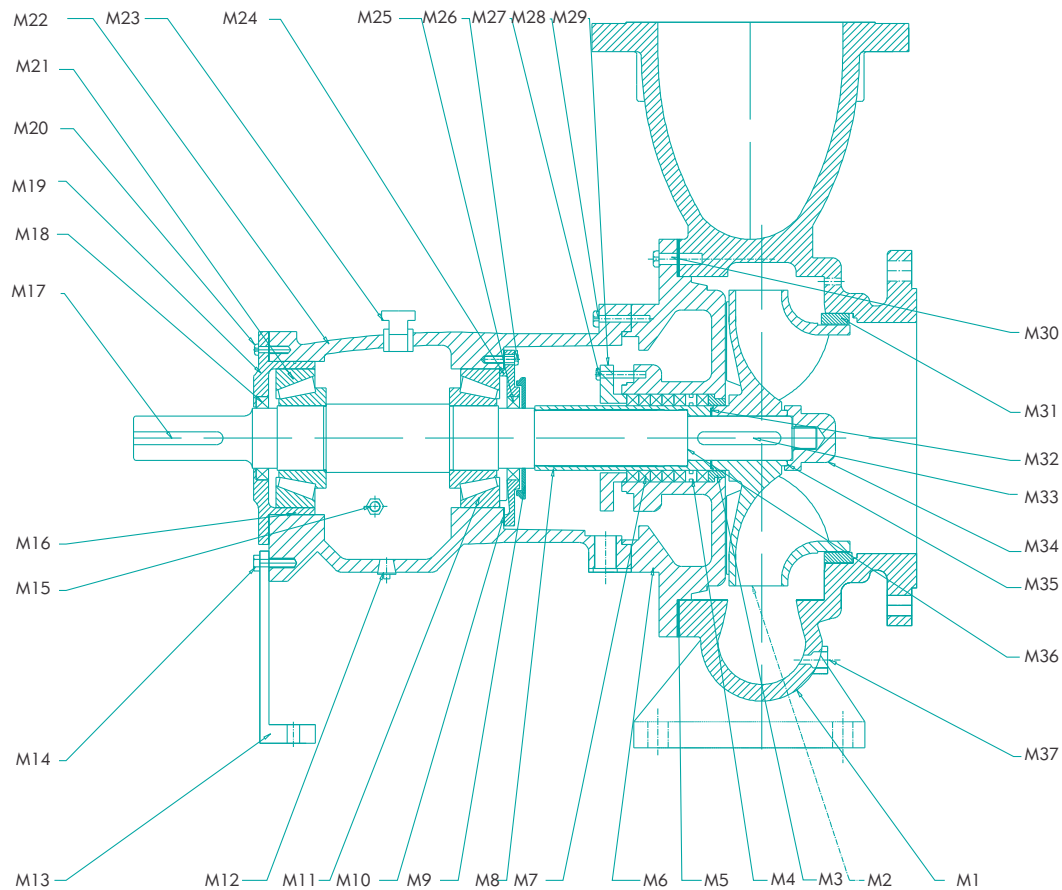
Technical Data

Pump Type	Suction Size 'mm'	Delivery Size 'mm'	Oil Seal Size	Bearing	GD ² -Value Kg-m ²	Pump Weight "kg"
200/320	250	200	90 X 65 X 10	312314 X 2 NOS	0.175	290
200/400	250	200	90 X 65 X 10	312314 X 2 NOS	0.380	310
250/320	250	250	90 X 65 X 10	312314 X 2 NOS	0.390	310
250/270	200	250	35 X 50 X 9 40 X 62 X 9	6408 X 2 - 51212 X 1	0.060	260
300/320	300	300	90 X 65 X 10	312314 X 2 NOS	0.220	360
250/400	300	250	75 X 100 X 10 80 X 90 X 10	3316 - NU 316	0.946	360
450/550	400	450	105 X 75 X 15 105 X 72 X 15	6415 X 2 - 51320 X 1	1.590	1425

The Company reserves the right to modify the technical specifications and illustrations without prior notice.

GENERAL DATA

Cross Sectional Drawing

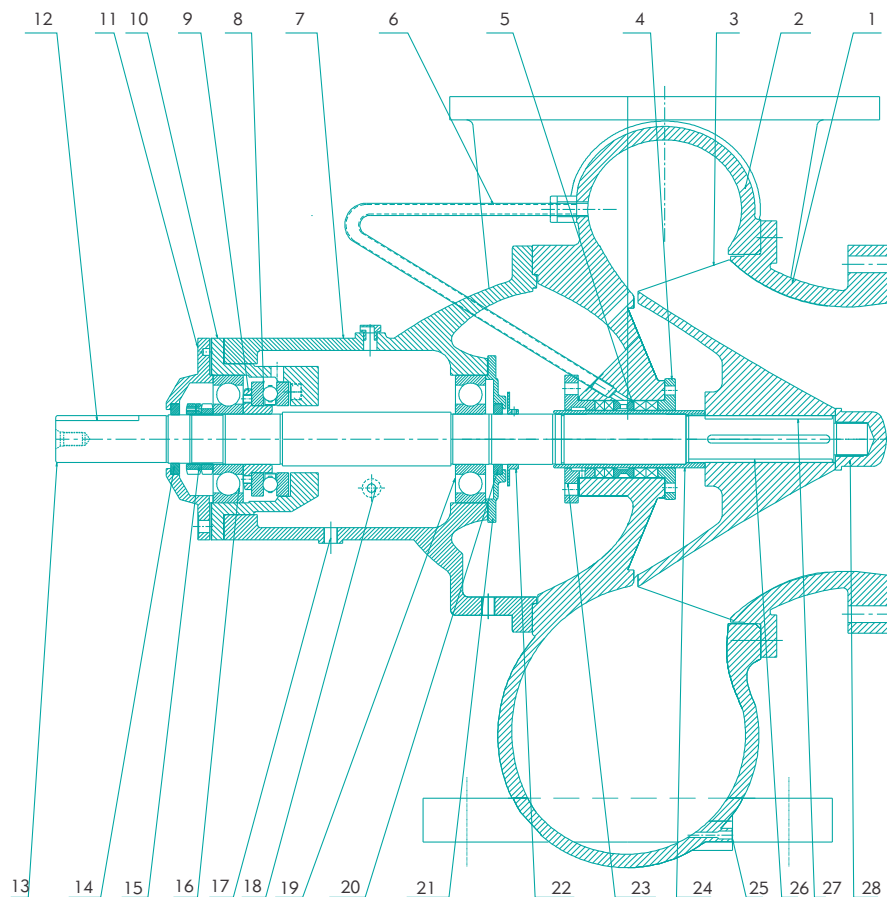


Code No	Part Name	Material	Qty
M1	Volute Casing		1
M2	Impeller		1
M3	Lay Brith Nech Ring		1
M4	Lantern Ring		1
M5	Gasket Casing		1
M6	Casing Cover		1
M7	Gland Packing	Tiga / Ptfе	1set
M8	Shaft Sleeve		1
M9	Deflector		1
M10	Gasket Inner Bearing Cover		1
M11	Bearing Pump End	Steel	1
M12	Plug (oil Drain)	Bs 970 En8	1
M13	Support Foot	Is 226 C15	1
M14	Support Foot Bolt	En8	1
M15	Oil Level Sight Glass	Aluminium	1
M16	O Ring Adopter		1
M17	Key (coupling)	Bs 970 En8	1
M18	Oil Seal (drive End)65x90x10		1
M19	Bearing Adopter	Is210 Fg 200	1
M20	Adopter Bolt	Ms	1
M21	Bearing Drive End	Bs 970 En8	1

Code No	Part Name	Material	Qty
M22	Bearing Bed	En8	
M23	Vent	Pp	1
M24	Bearing Cover (inner)		1
M25	Oil Seal (pump End)65x90x10		1
M26	Brg Cap / Brg Housing Bolt	Is210 Fg 200	1
M27	Gland Stud & Nut	Is 210 Fg 200	1
M28	Brg Bed / S.box Stud & Nut		1
M29	Gland Split		1
M30	Casing / S.box Stud & Nut		1
M31	Wear Ring		1
M32	Gasket Sleeve / Impeller		1
M33	Key Impeller		1
M34	Impeller Nut		1
M35	Gasket (imp. Nut)	Teflon	1
M36	Pump Shaft		1
M37	Plug Casing Drain		

GENERAL DATA

Cross Sectional Drawing



Code No	Part Name	Material	Qty
1	Suction Cover	CI	1
2	Volute Casing	CI	1
3	Impeller	CI / GM	1
4	Stuffing Box Cover	CI	1
5	Lantern Ring	SS	1
6	St.box Colling Tupe	STEEL	1
7	Bearing Bed	CI	1
8	Thrust Bearing (drive)	STEEL	1
9	Thrust Bearing Adopter	CI	1
10	Bearing Adopter	CI	1
11	Bearing Cap Outer	CI	1
12	Key Coupling		1
13	Shaft	EN8 / SS	1
14	Oil Seal(drive)75x105x13	RUBBER	1

Code No	Part Name	Material	Qty
15	Lock Nut	BS 970 EN8	1
16	Ball Bearing (drive)	STEEL	1
17	Oil Rain Plug		1
18	Oil Level Sight Glass	ALUMINIUM	1
19	Ball Bearing(pump)	STEEL	1
20	Oil Seal(pump)75x105x13		1
21	Bearing Cap Inner	IS210 FG 200	1
22	Deflector	SS316	1
23	Gland	IS 270 FG 200	1
24	Sleeve		1
25	Casing Drain		1
26	Key Sleeve		1
27	Key Impeller		1
28	Impeller Nut	SS	1

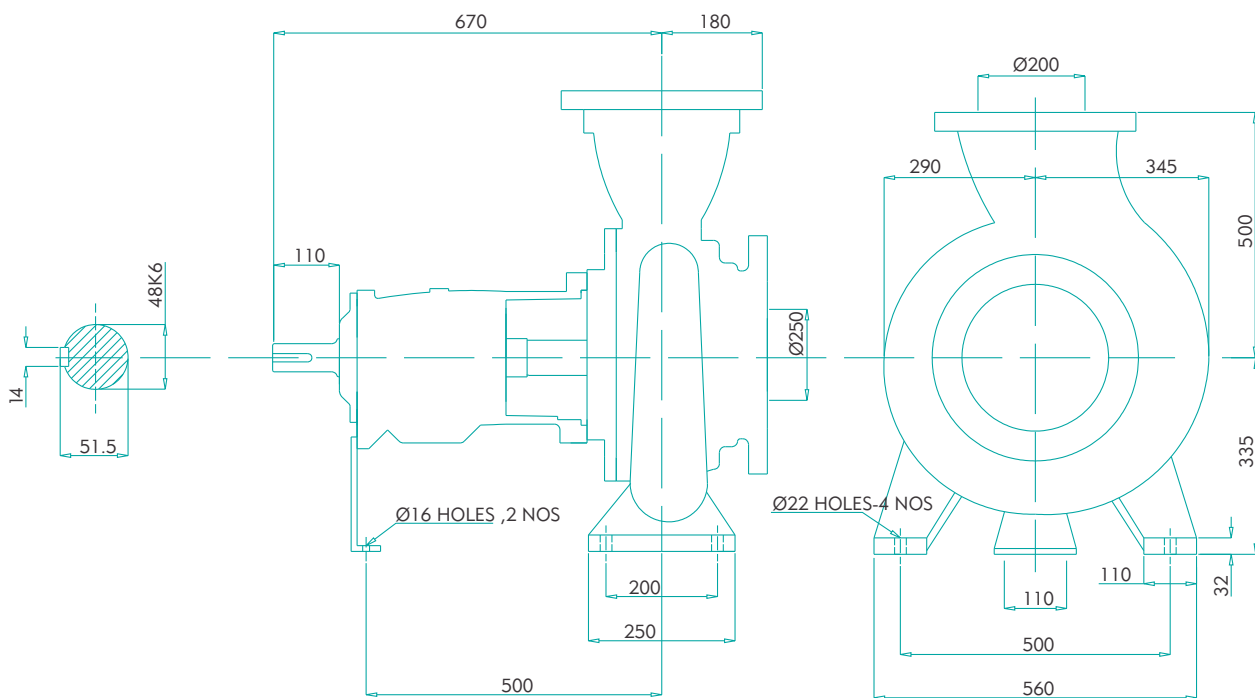
The Company reserves the right to modify the technical specifications and illustrations without prior notice.

DIMENSIONAL DRAWING

Model : **TEM-200-320**

SIZE : **250 x 200**

FLANGE STD:ANSI 150 LBS

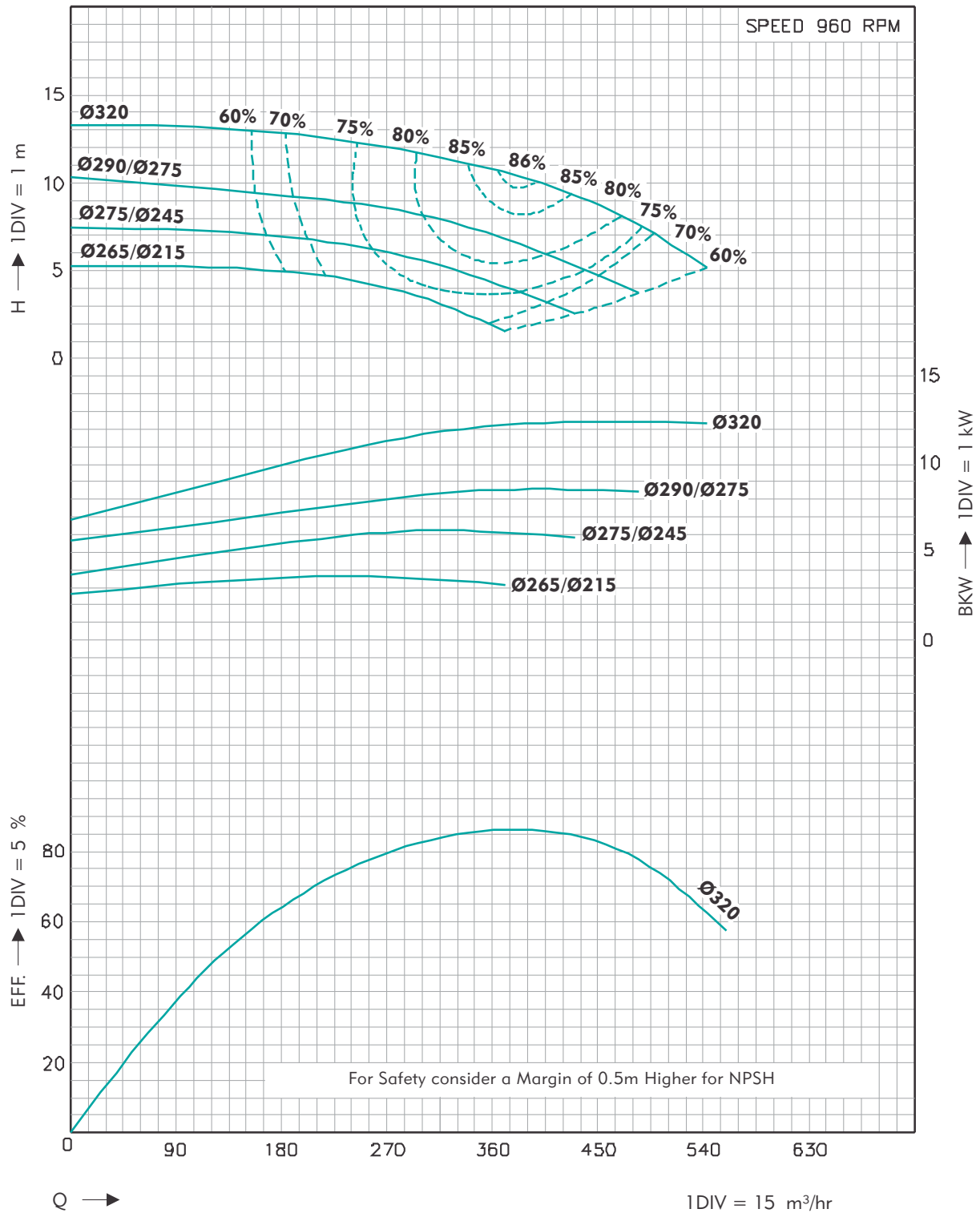


DIRECTION OF ROTATION : CLOCK WISE FROM DRIVE END

PERFORMANCE CURVES

Model : **TEM-200-320**

SIZE : **250 x 200**

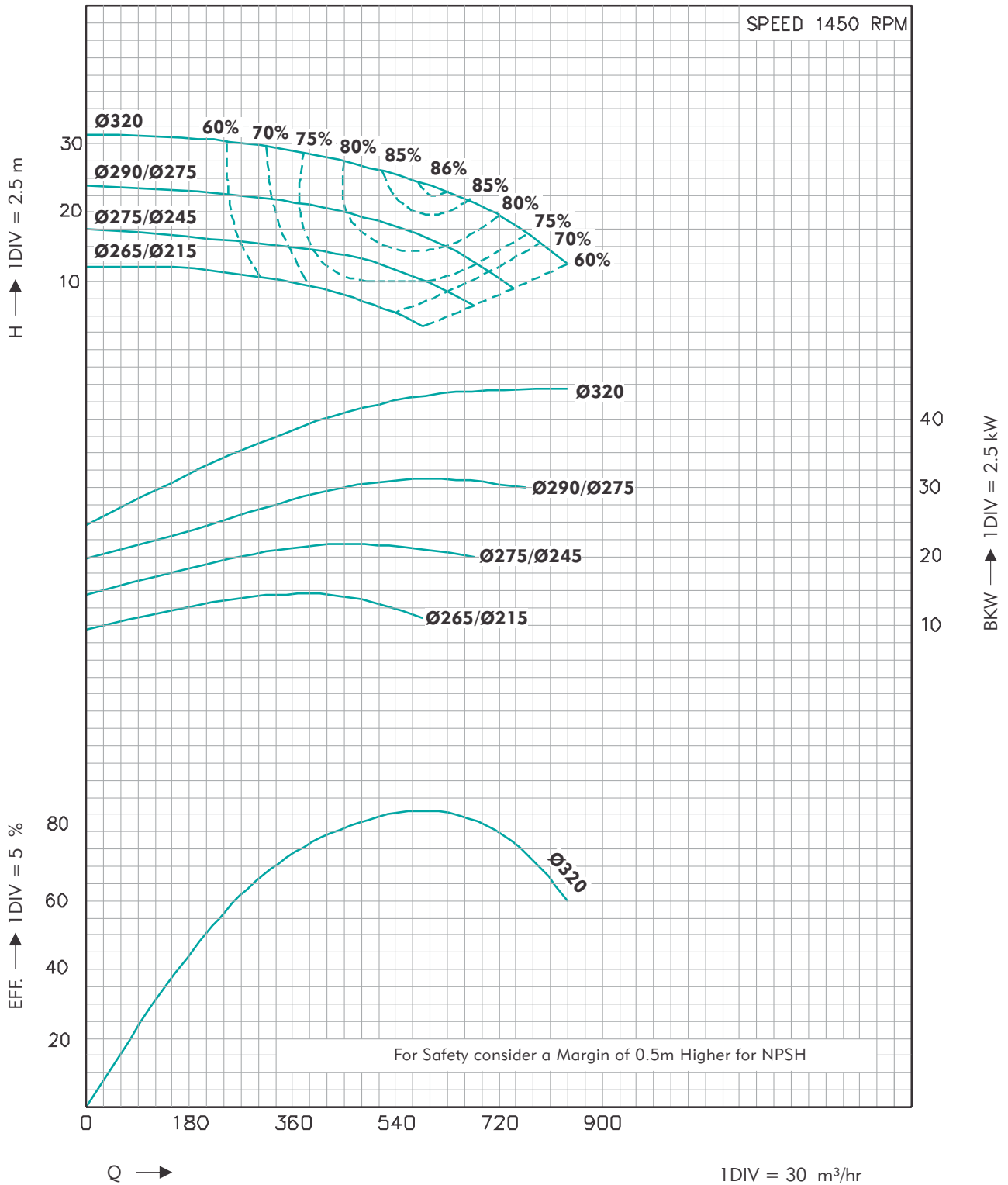


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-200-320**

SIZE : **250 x 200**



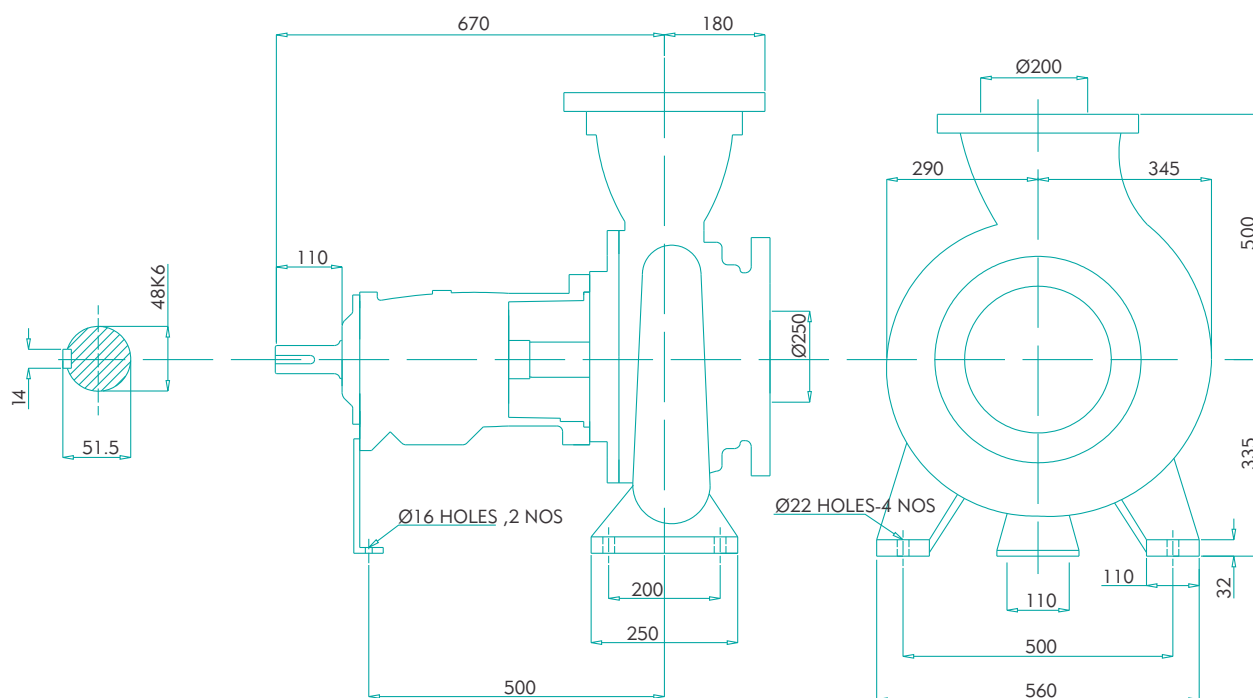
Note : Performance curve are as per specific gravity and viscosity of water.

DIMENSIONAL DRAWING

Model : **TEM-200-400**

SIZE : **250 x 200**

FLANGE STD:ANSI 150 LBS



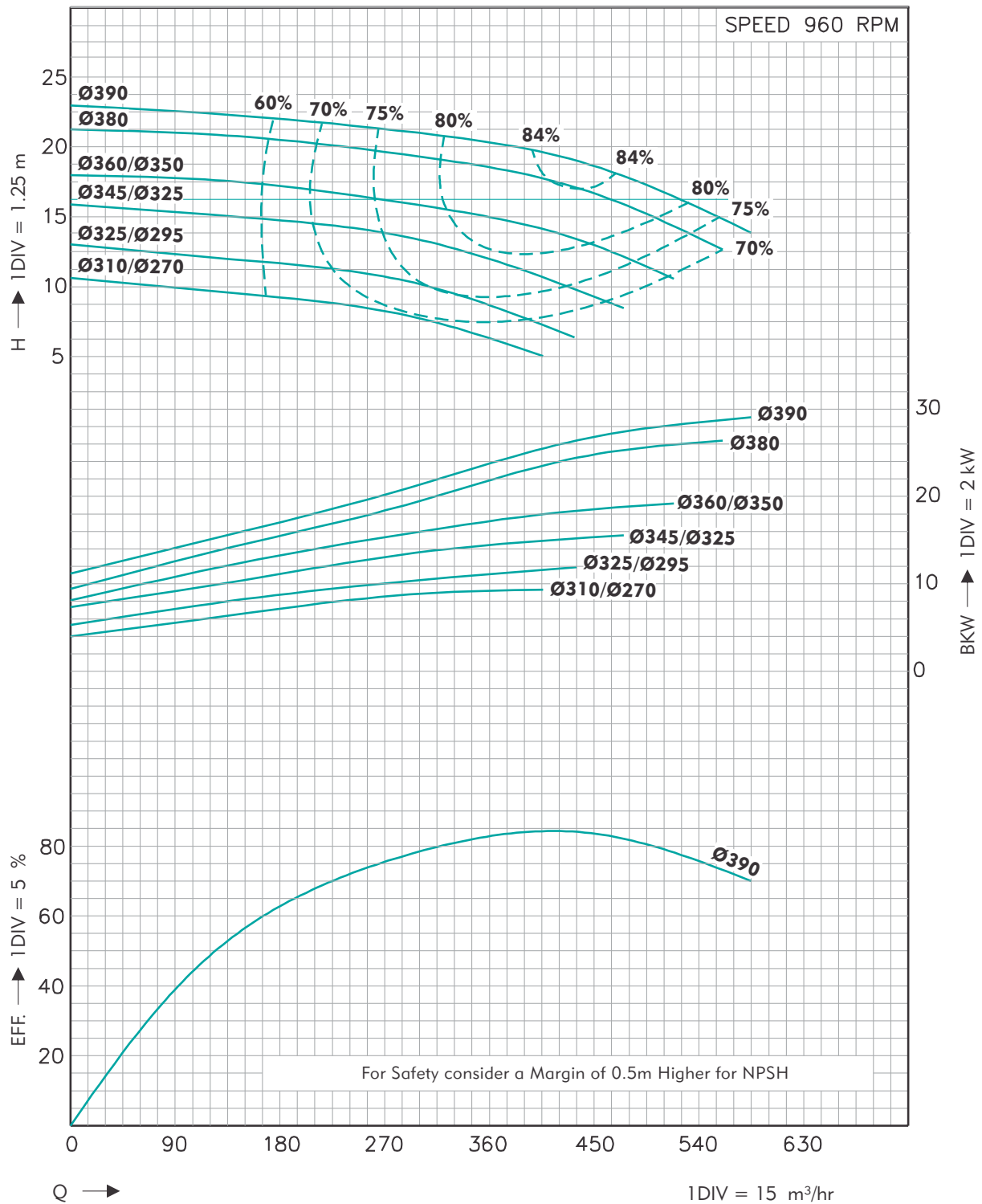
DIRECTION OF ROTATION : CLOCK WISE FROM DRIVE END

The Company reserves the right to modify the technical specifications and illustrations without prior notice.

PERFORMANCE CURVES

Model : **TEM-200-400**

SIZE : **250 x 200**

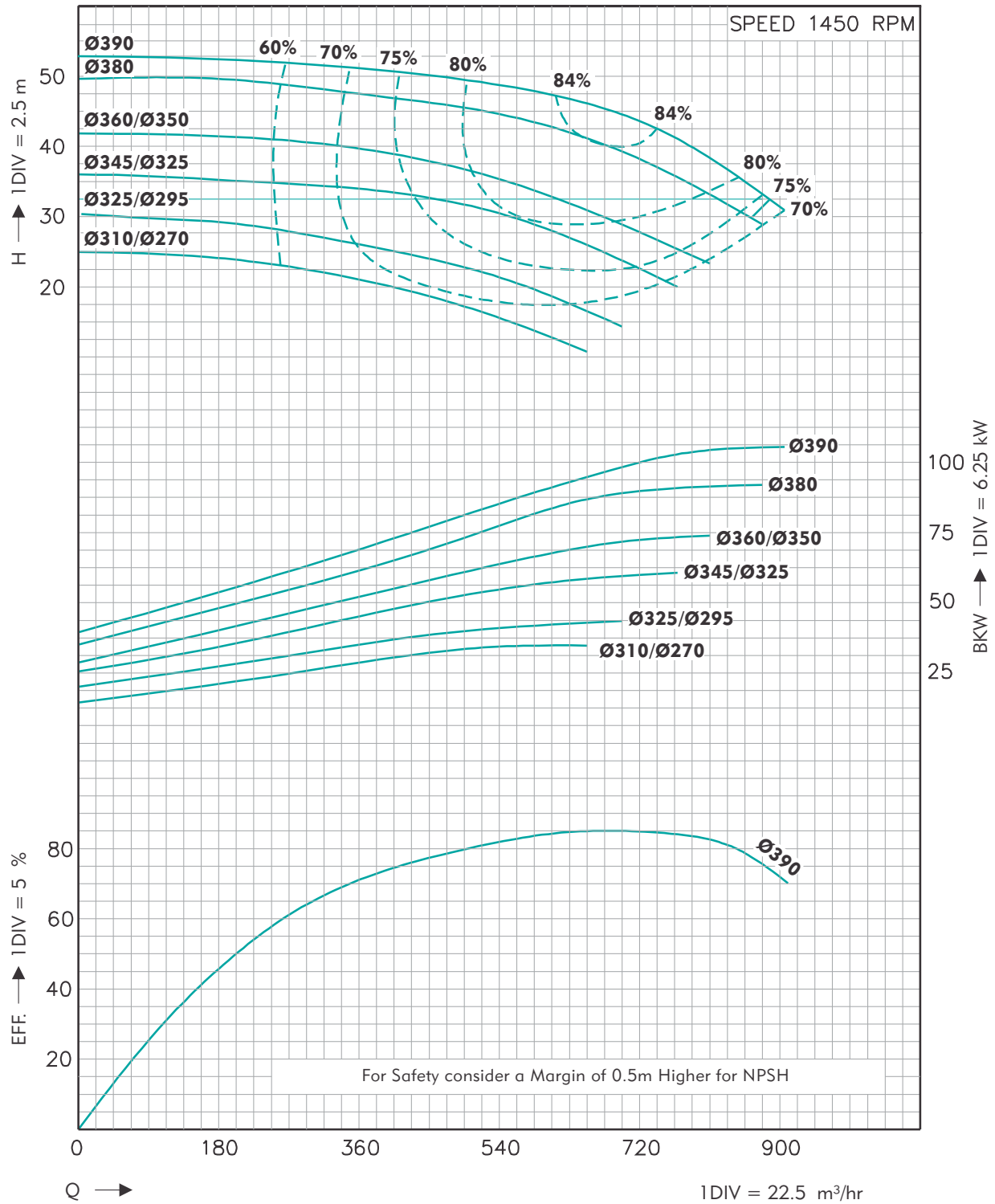


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-200-400**

SIZE : **250 x 200**



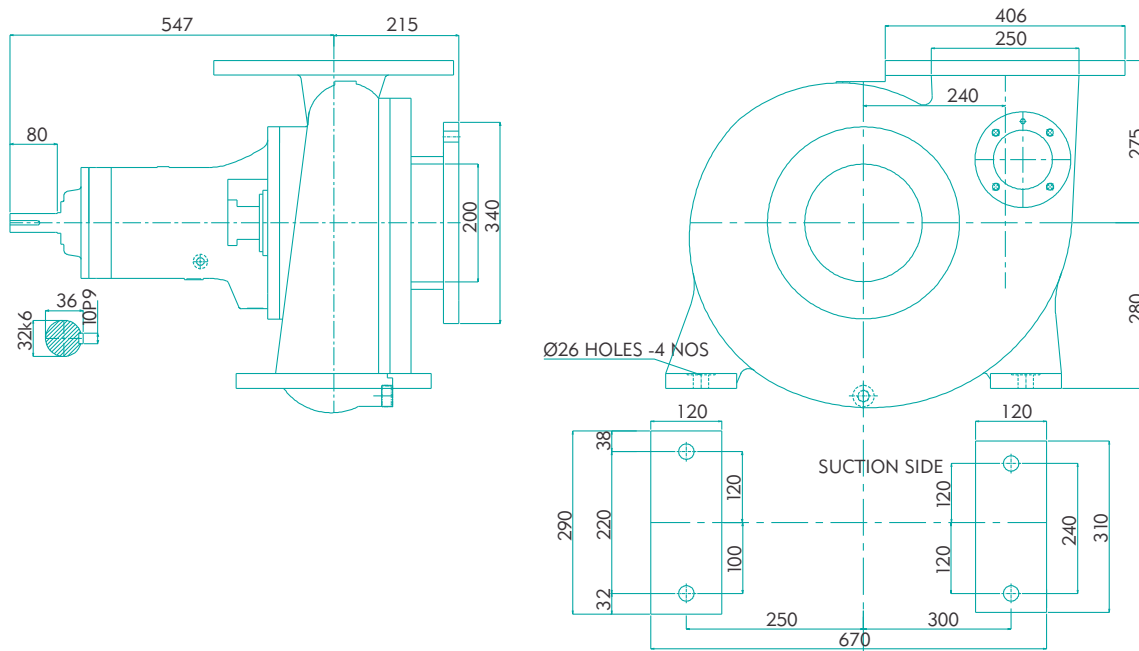
Note : Performance curve are as per specific gravity and viscosity of water.

DIMENSIONAL DRAWING

Model : **TEM-250-270**

SIZE : **200 x 250**

FLANGE STD:BS10 TABLE "D"

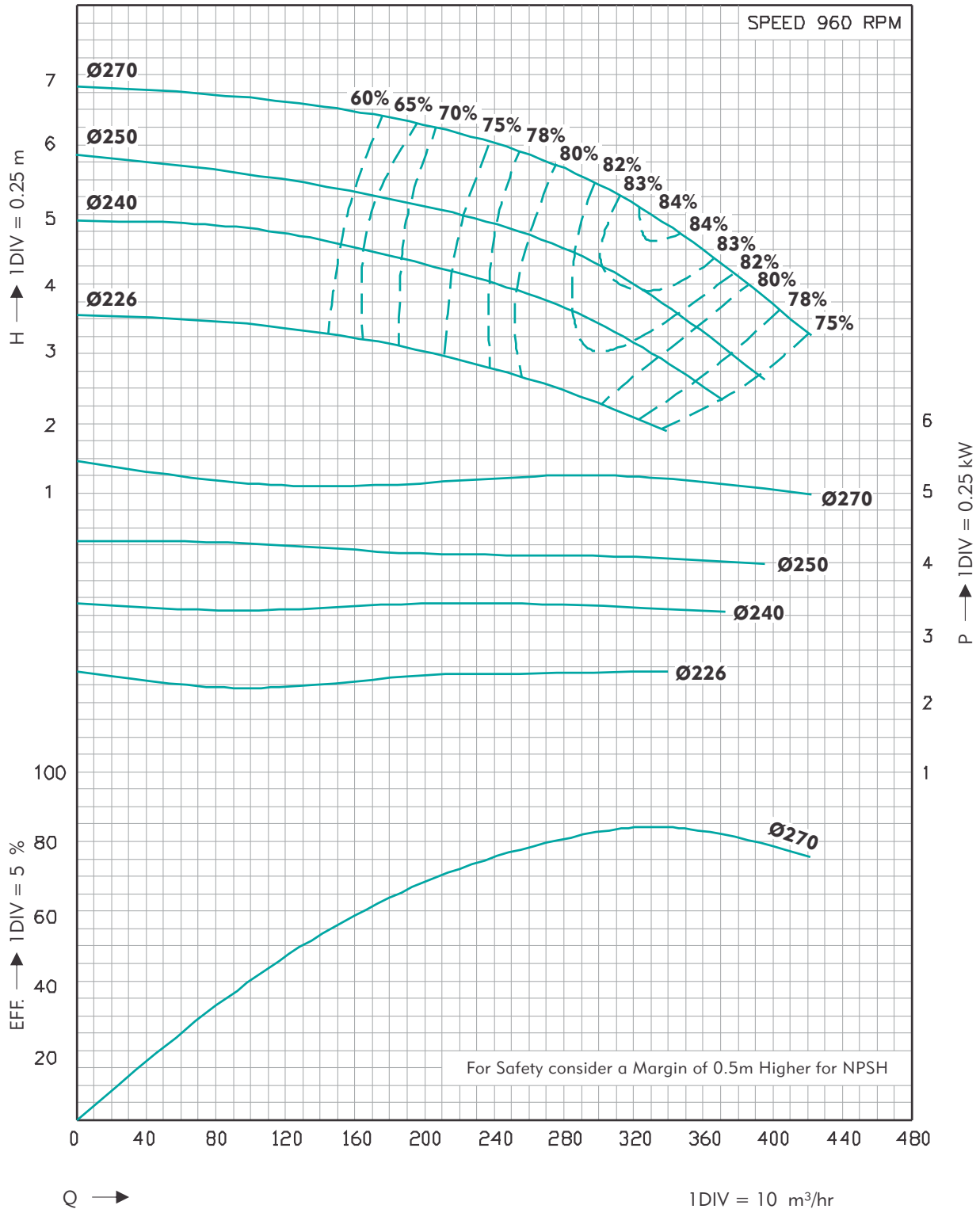


DIRECTION OF ROTATION:CLOCK WISE FROM DRIVE END

PERFORMANCE CURVES

Model : **TEM-250-270**

SIZE : **200 x 250**

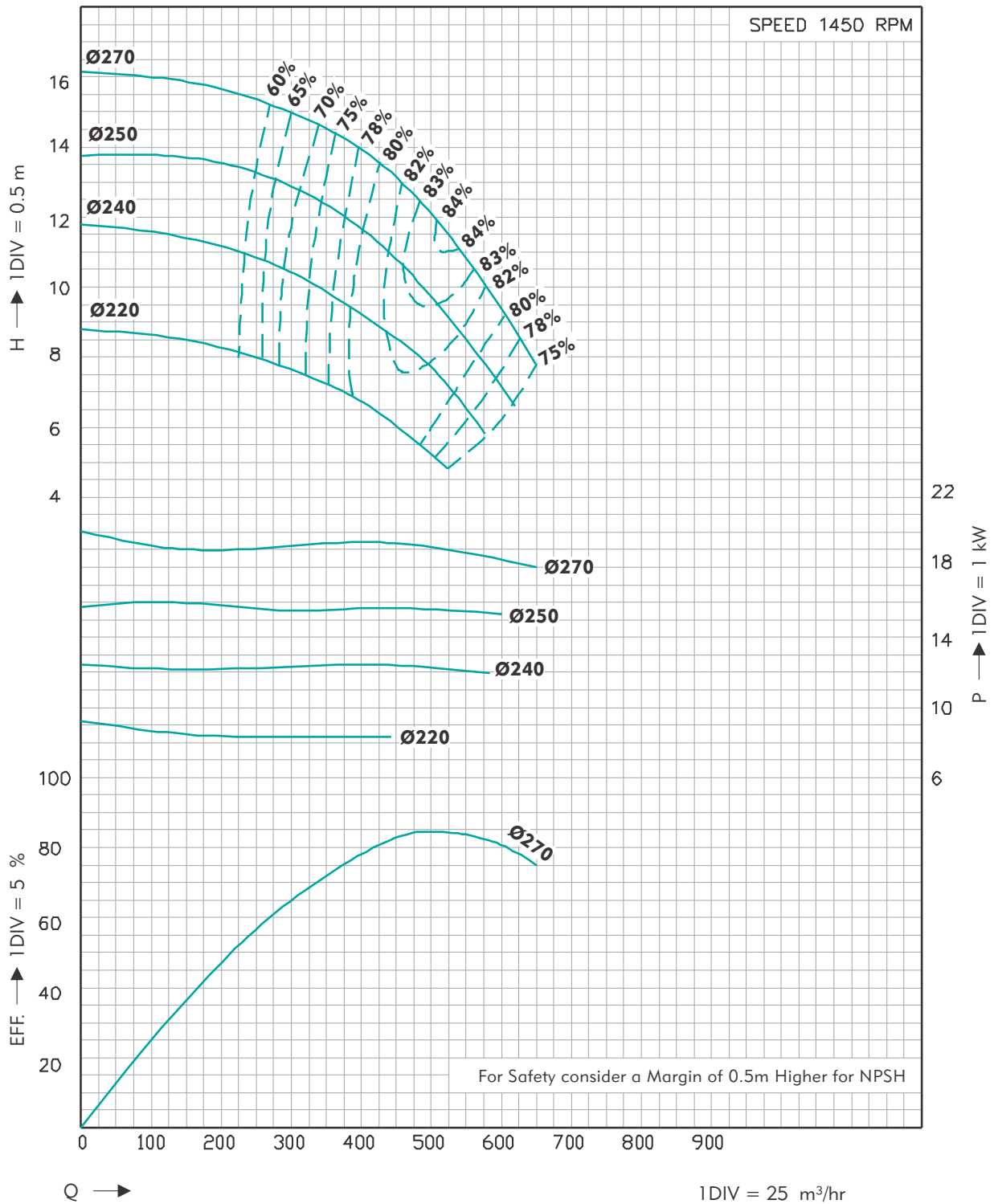


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-250-270**

SIZE : **200 x 250**



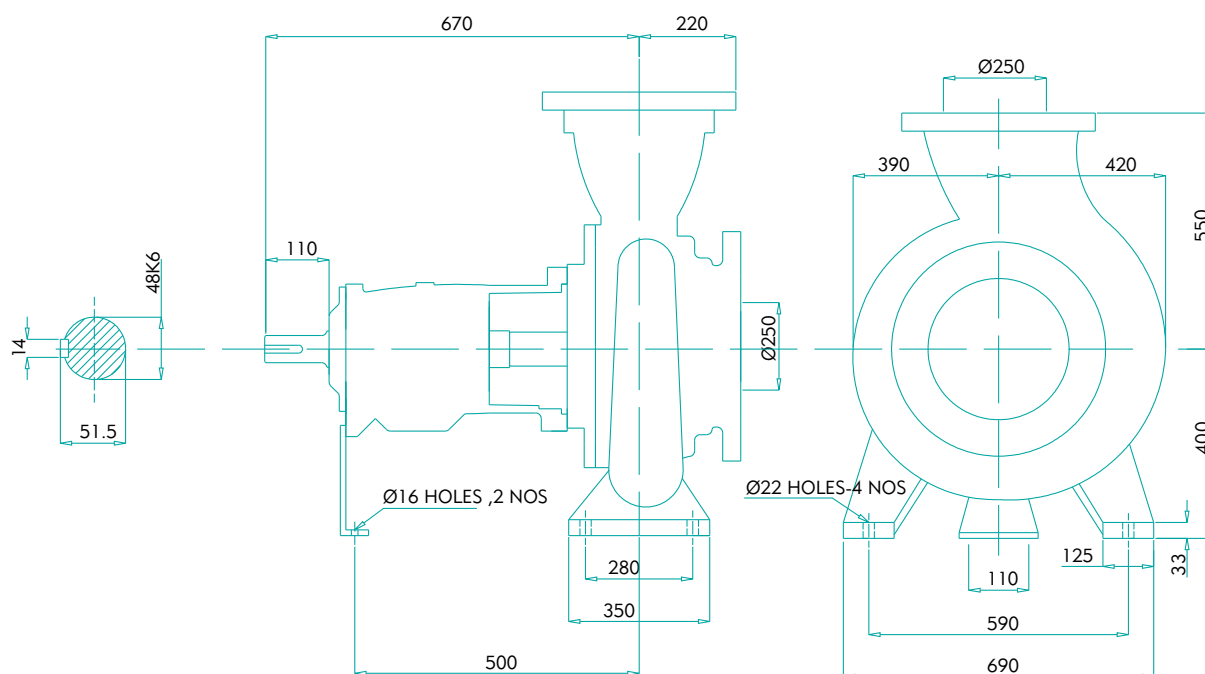
Note : Performance curve are as per specific gravity and viscosity of water.

DIMENSIONAL DRAWING

Model : **TEM-250-320**

SIZE : **250 x 250**

FLANGE STD:ANSI 150 LBS

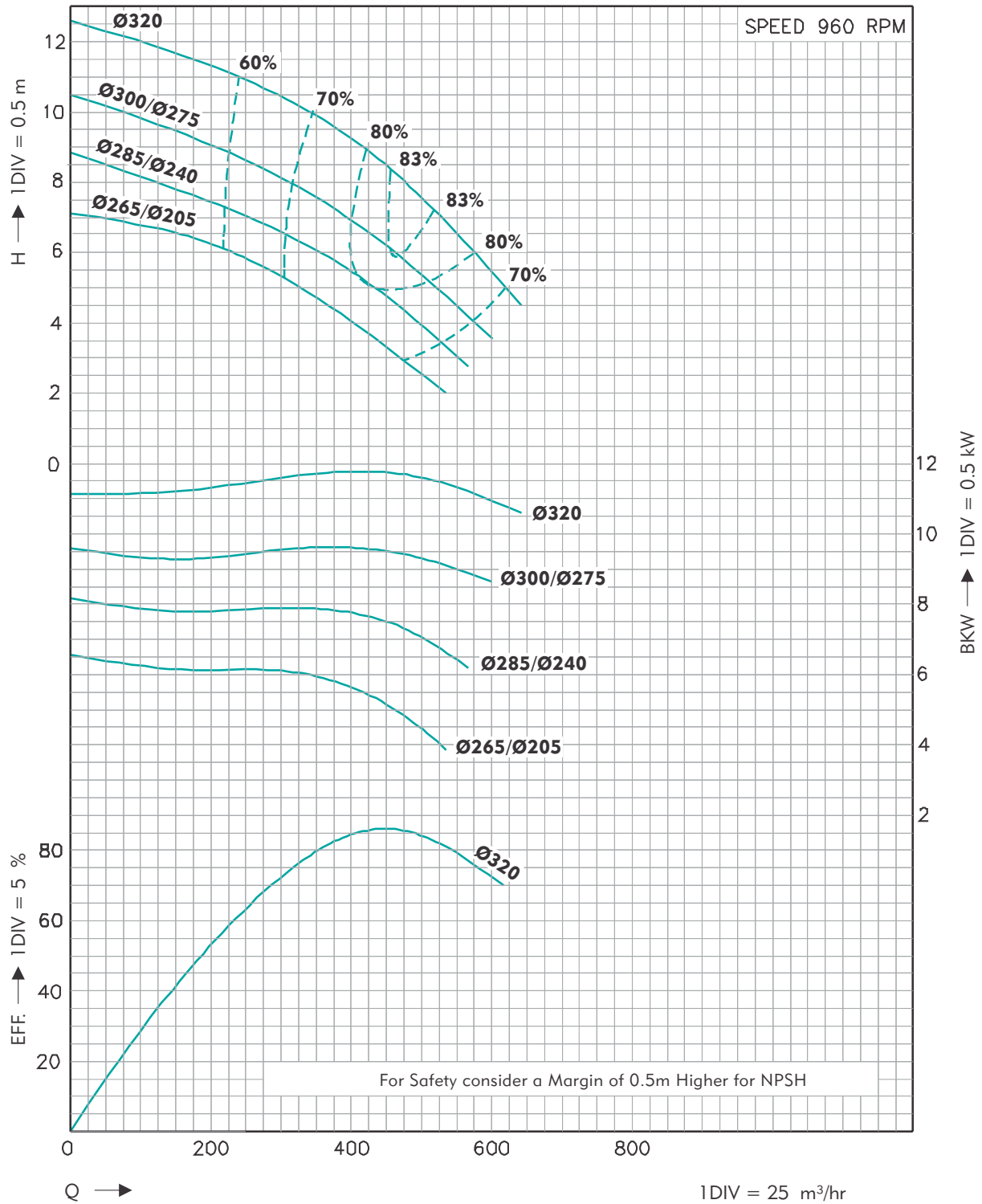


DIRECTION OF ROTATION : CLOCK WISE FROM DRIVE END

PERFORMANCE CURVES

Model : **TEM-250-320**

SIZE : **250 x 250**

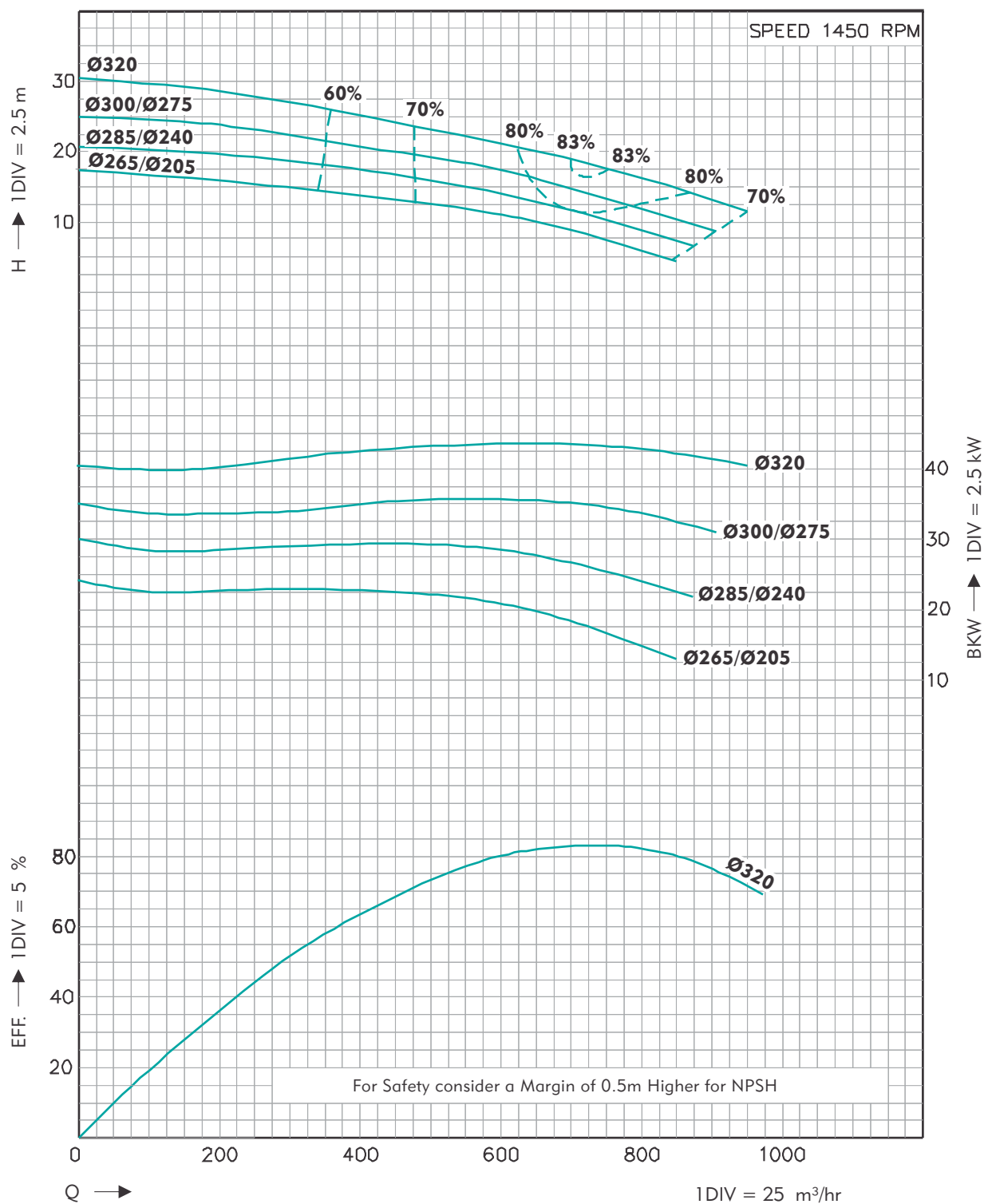


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-250-320**

SIZE : **250 x 250**



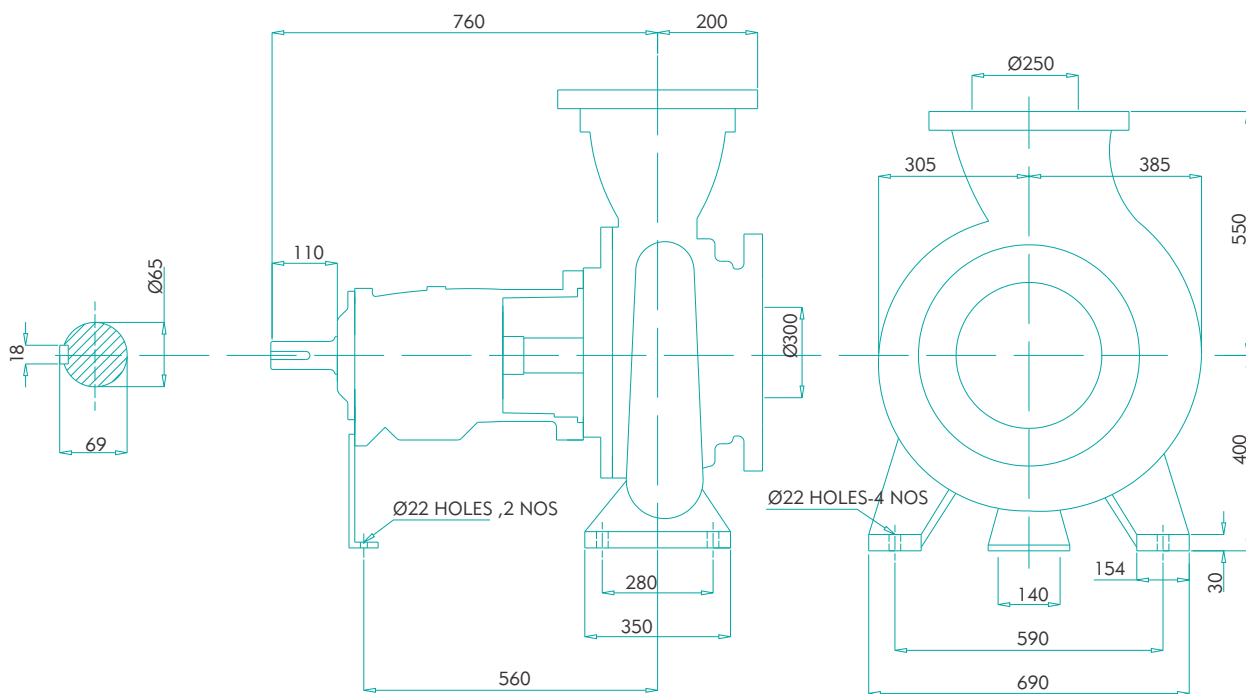
Note : Performance curve are as per specific gravity and viscosity of water.

DIMENSIONAL DRAWING

Model : **TEM-250-400**

SIZE : **300 x 250**

FLANGE STD:ANSI 150 LBS

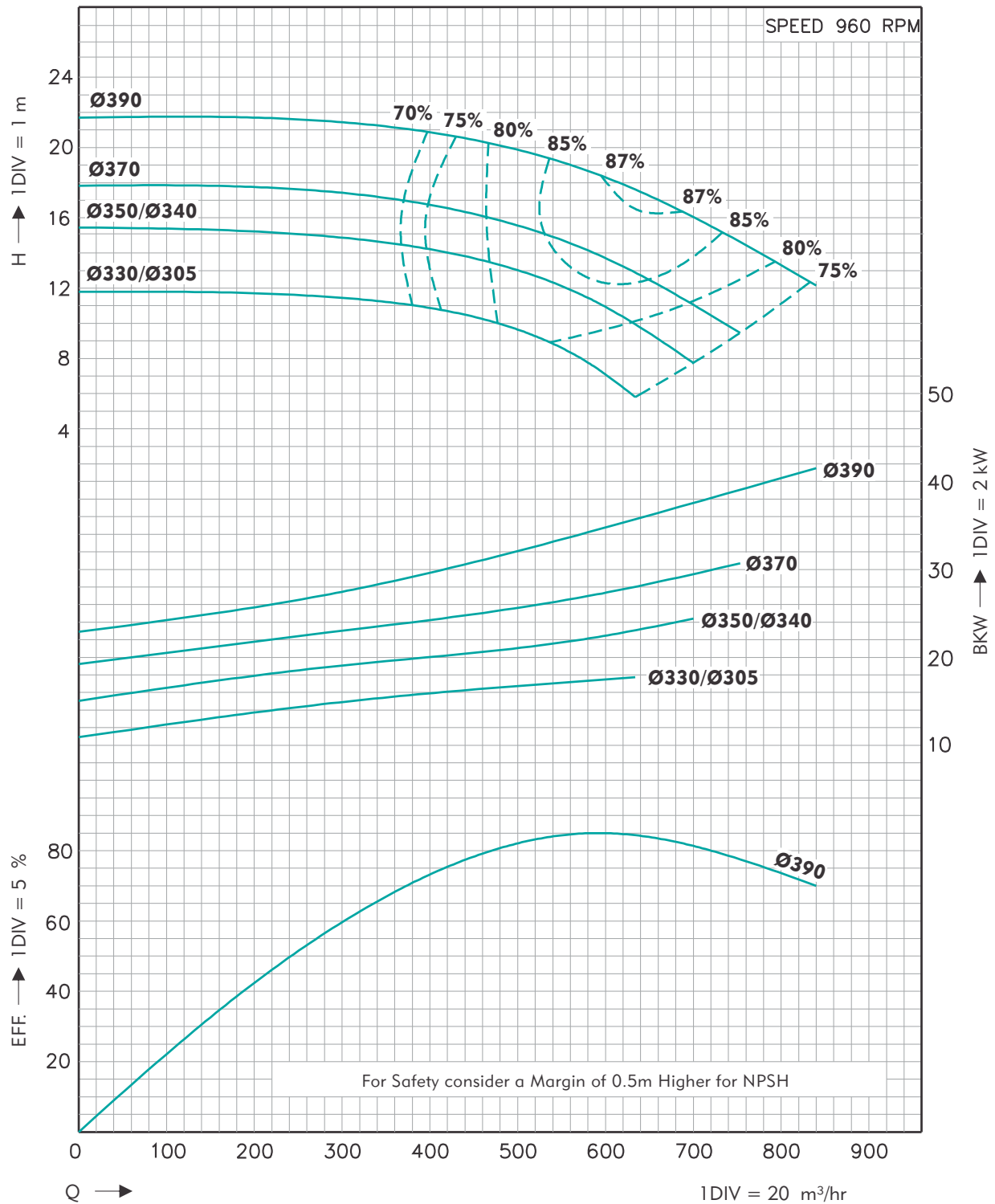


DIRECTION OF ROTATION : CLOCK WISE FROM DRIVE END

PERFORMANCE CURVES

Model : **TEM-250-400**

SIZE : **300 x 250**

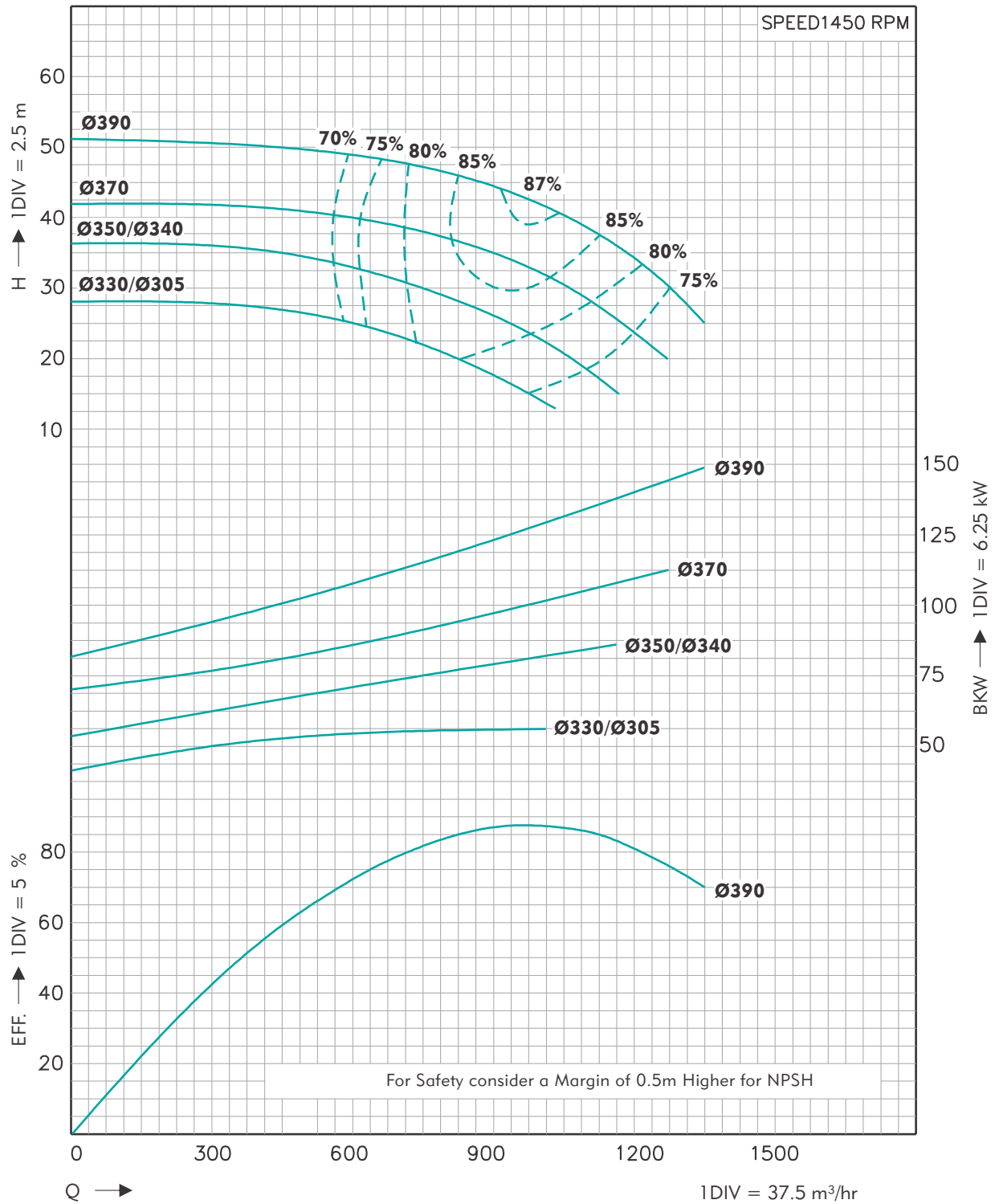


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-250-400**

SIZE : **300 x 250**



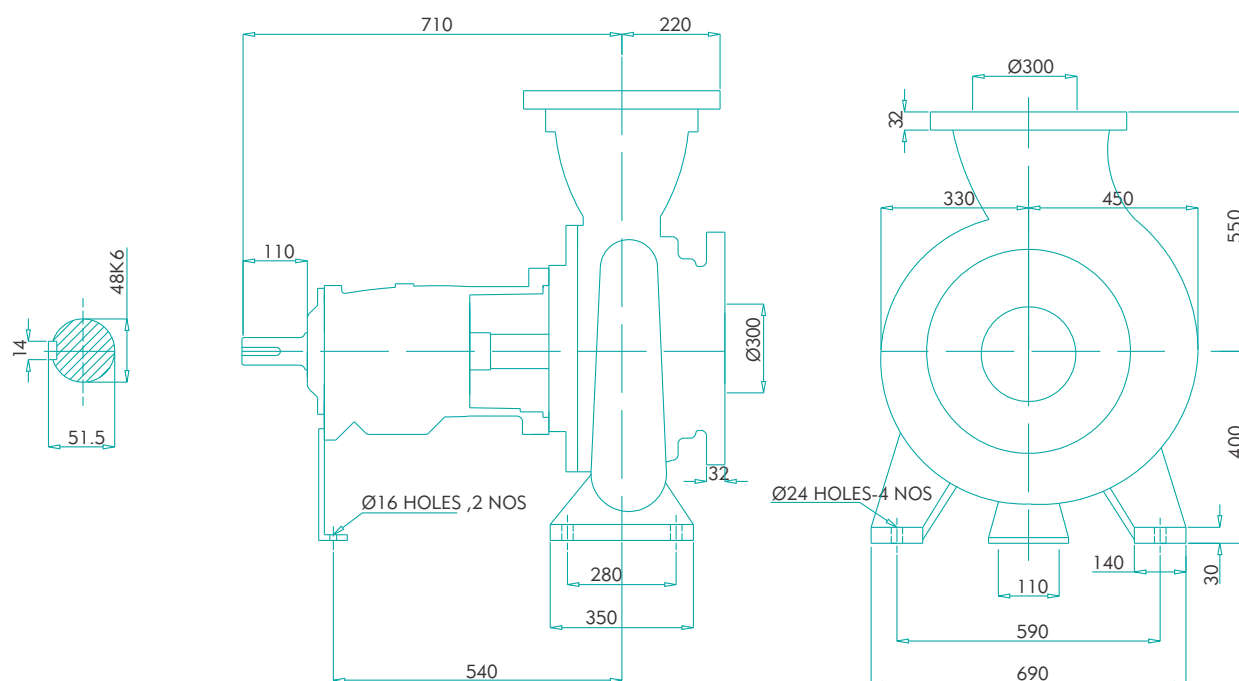
Note : Performance curve are as per specific gravity and viscosity of water.

DIMENSIONAL DRAWING

Model : **TEM-300-320**

SIZE : **300 x 300**

FLANGE STD:ANSI 150 LBS

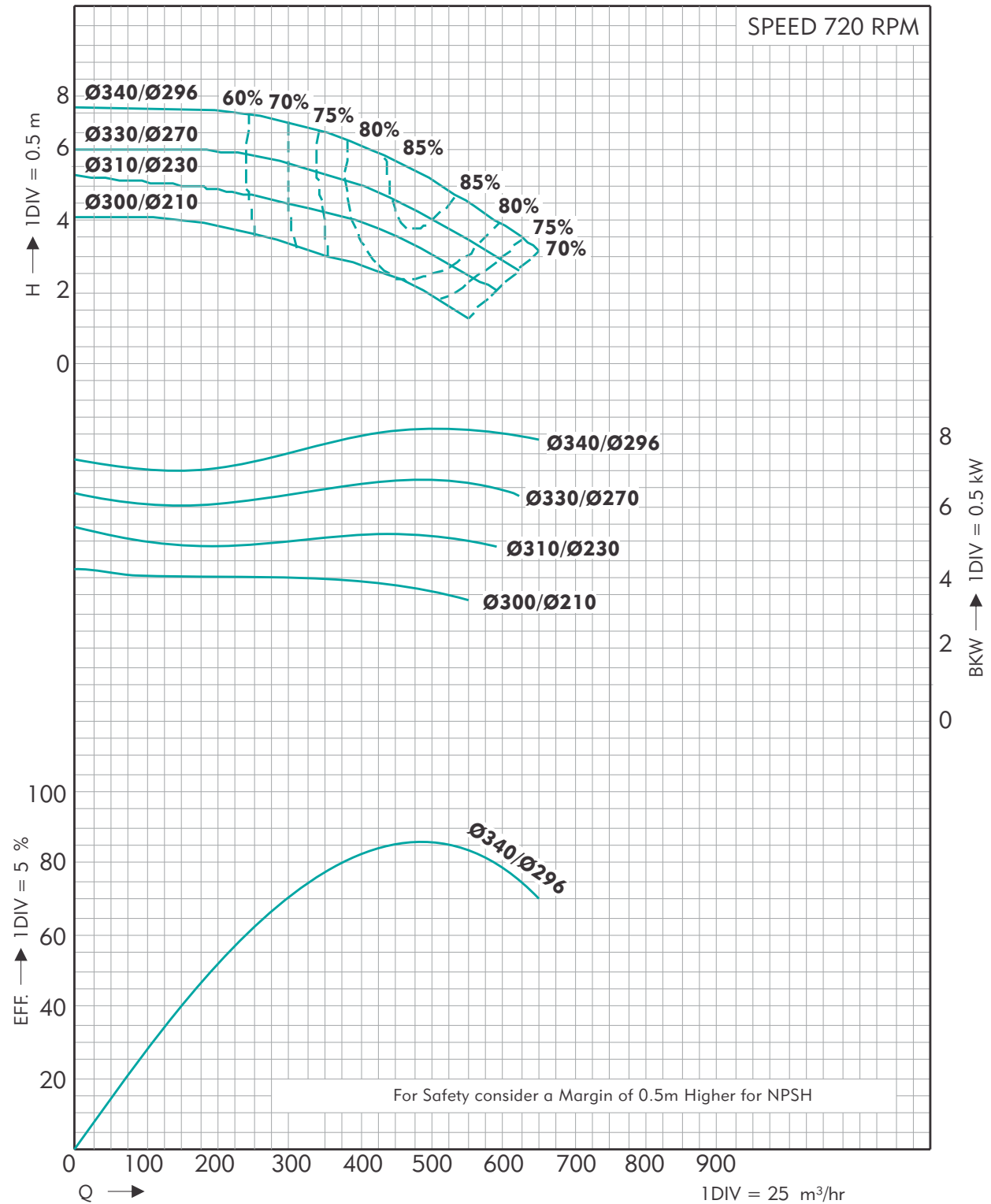


DIRECTION OF ROTATION : CLOCK WISE FROM DRIVE END

PERFORMANCE CURVES

Model : **TEM-300-320**

SIZE : **300 x 300**

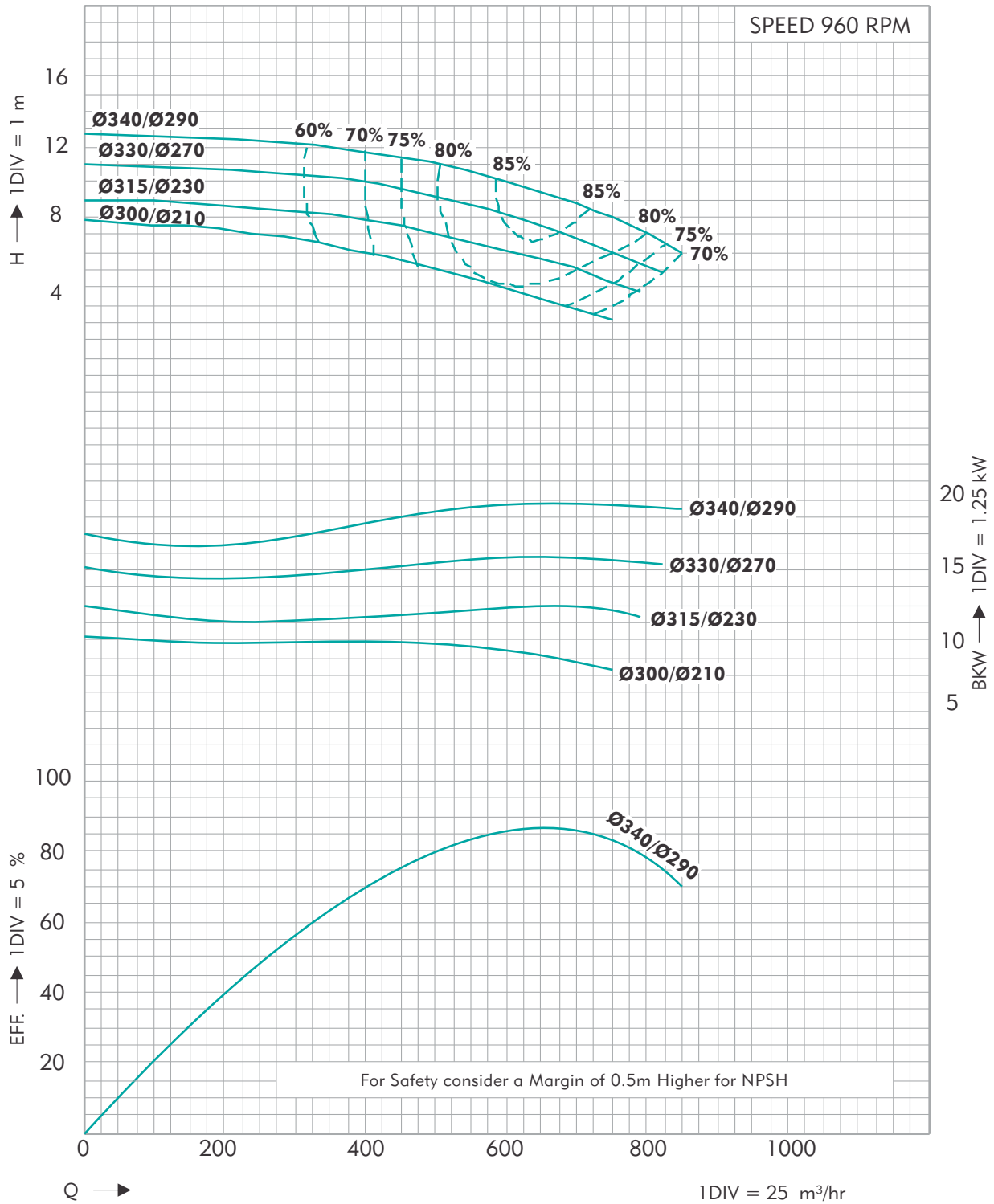


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-300-320**

SIZE : **300 x 300**

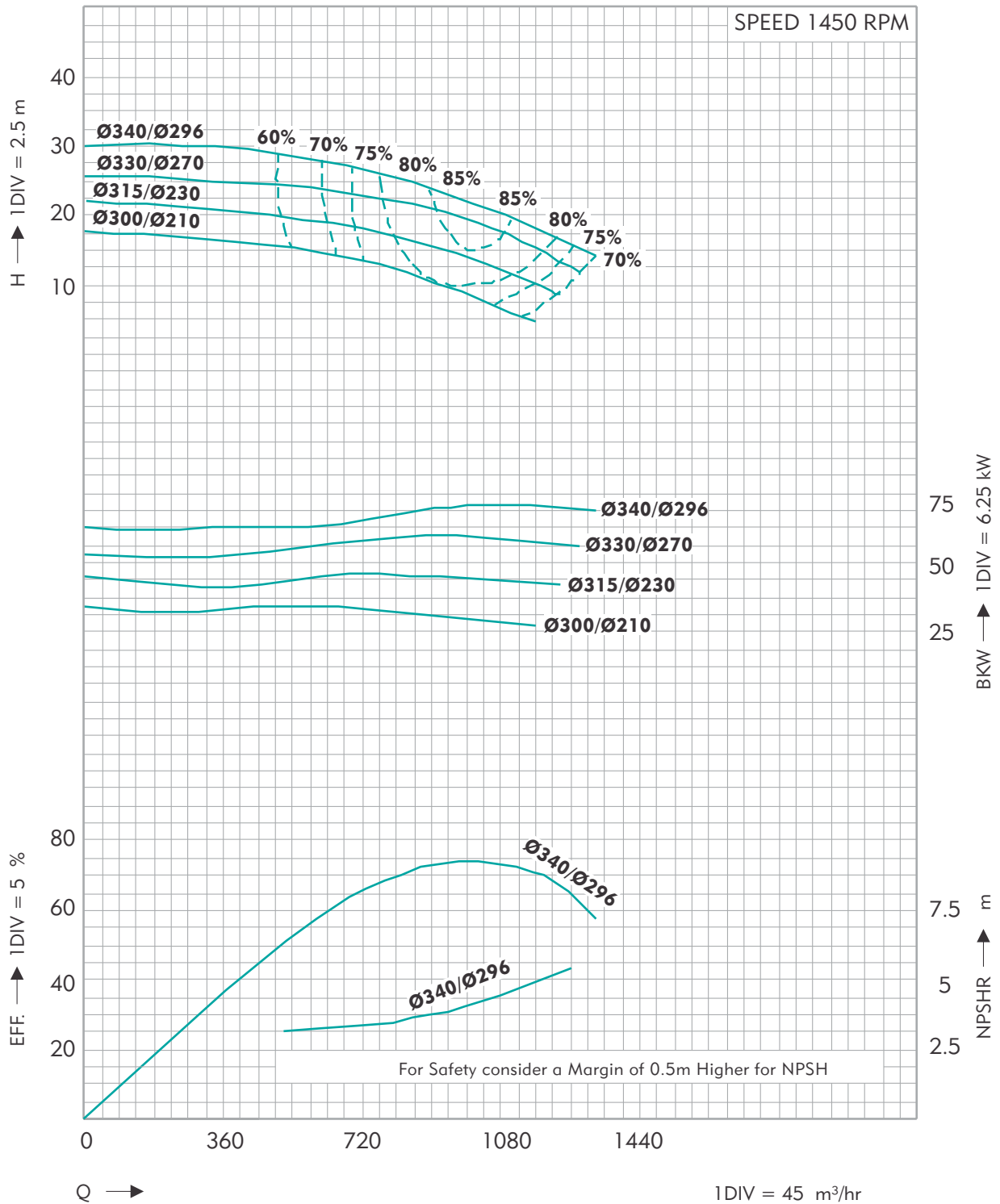


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-300-320**

SIZE : **300 x 300**

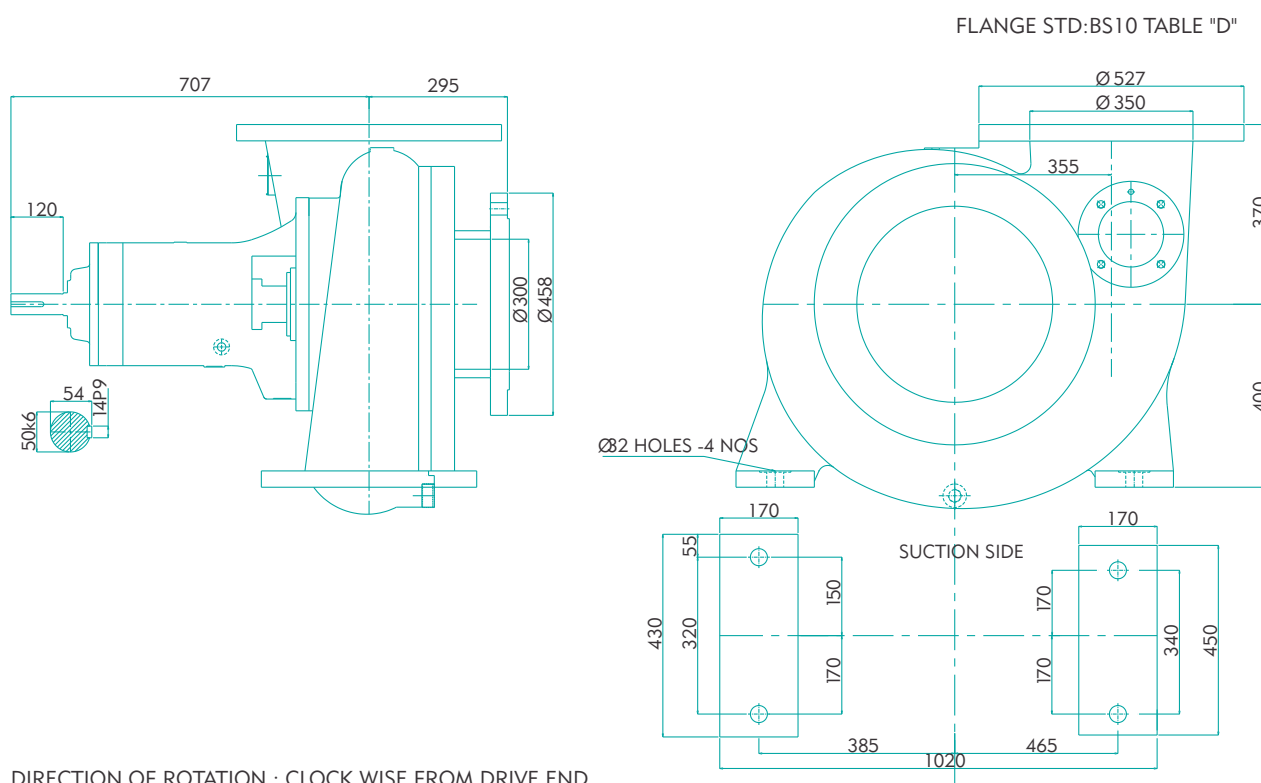


Note : Performance curve are as per specific gravity and viscosity of water.

DIMENSIONAL DRAWING

Model : **TEM-350-400**

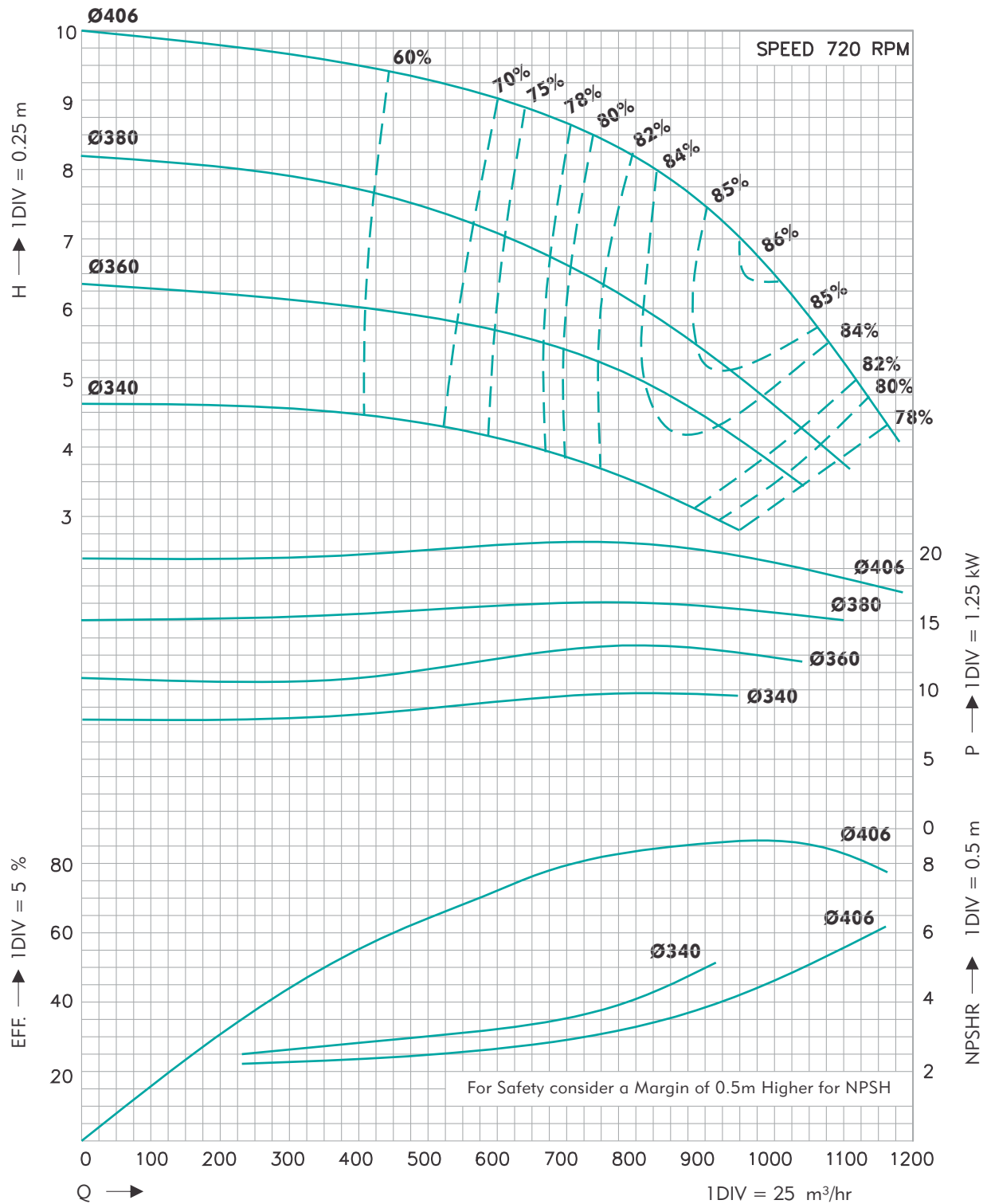
SIZE : **300 x 350**



PERFORMANCE CURVES

Model : **TEM-350-400**

SIZE : **300 x 350**

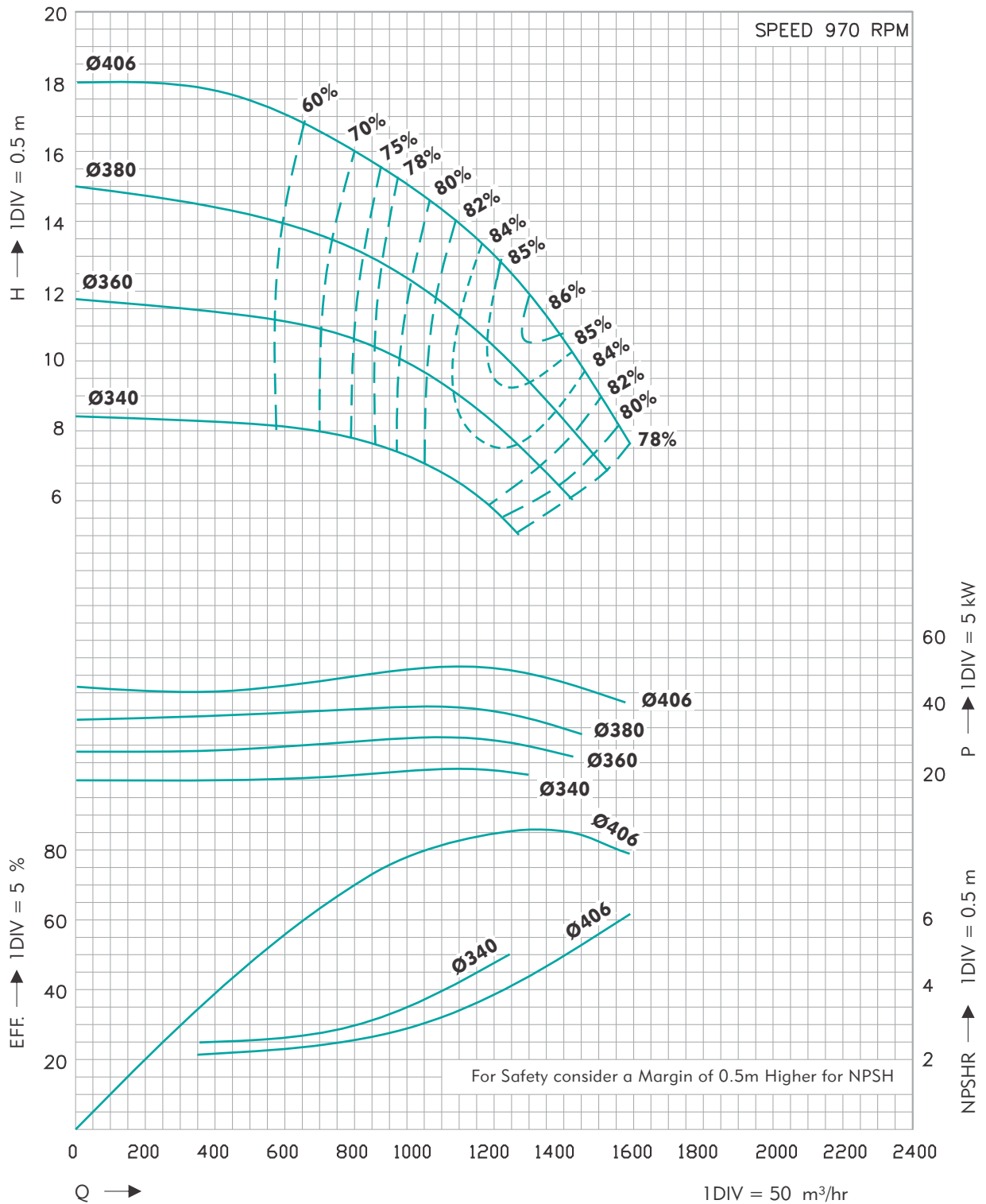


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-350-400**

SIZE : **300 x 350**

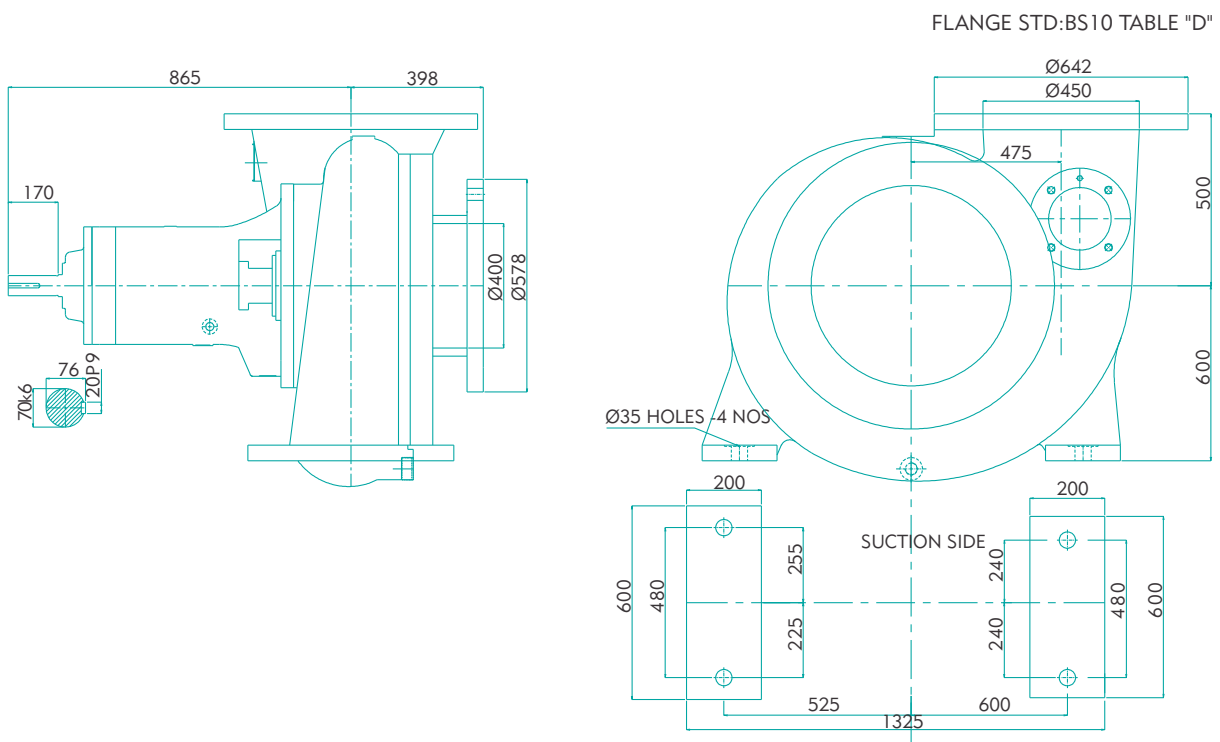


Note : Performance curve are as per specific gravity and viscosity of water.

DIMENSIONAL DRAWING

Model : **TEM-450-550**

SIZE : **400 x 450**

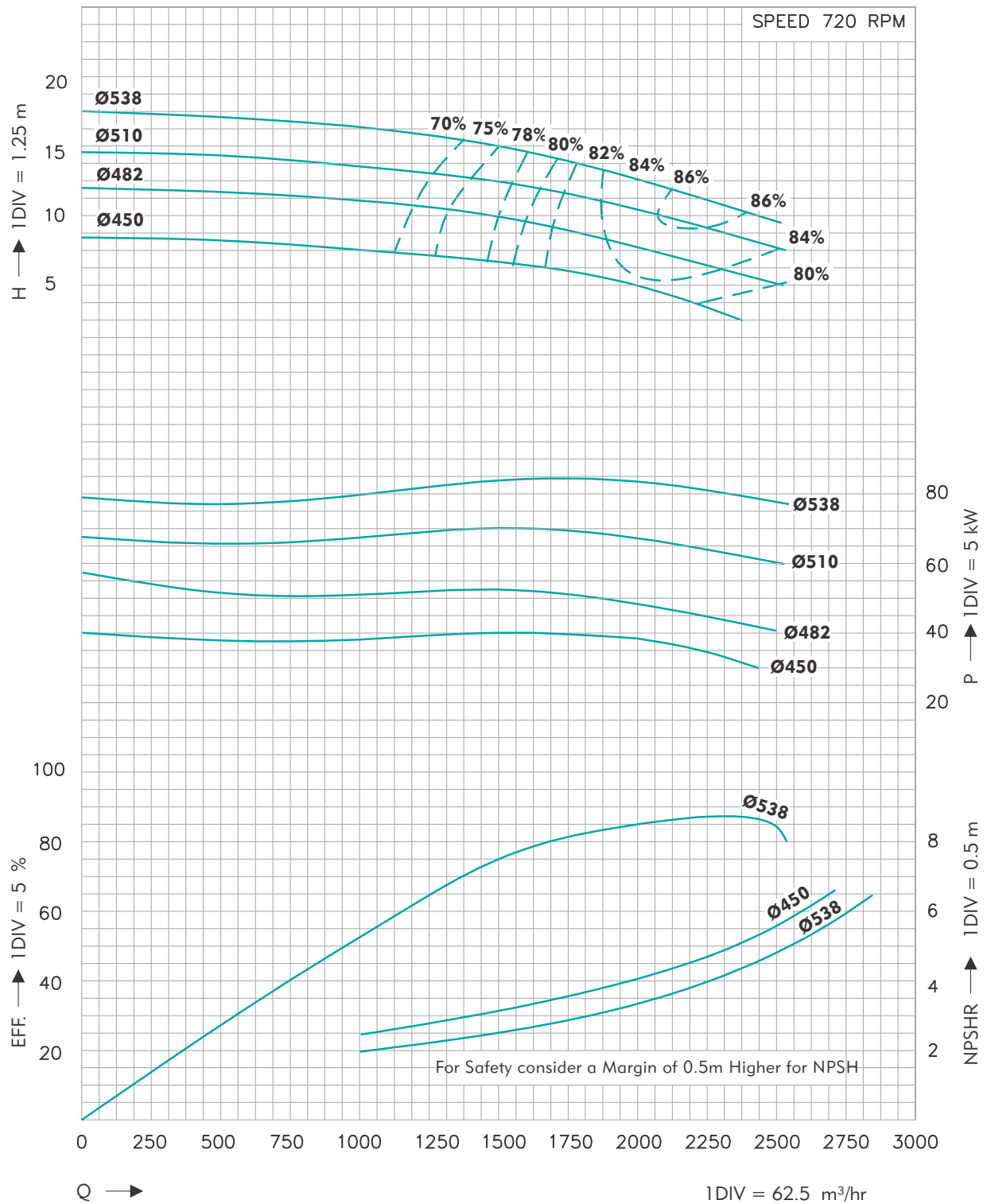


DIRECTION OF ROTATION: CLOCK WISE FROM DRIVE END

PERFORMANCE CURVES

Model : **TEM-450-550**

SIZE : **400 x 450**

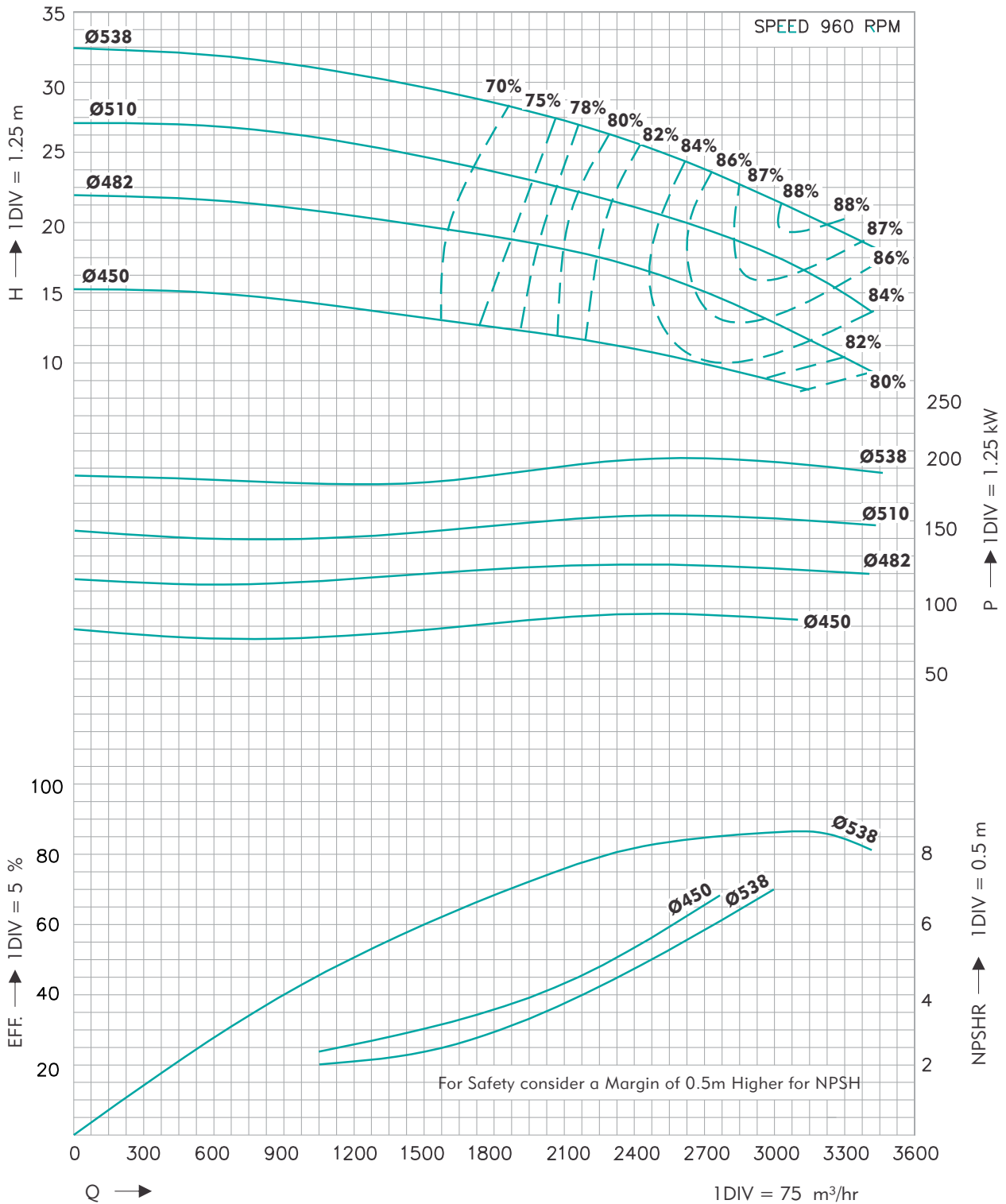


Note : Performance curve are as per specific gravity and viscosity of water.

PERFORMANCE CURVES

Model : **TEM-450-550**

SIZE : **400 x 450**



Note : Performance curve are as per specific gravity and viscosity of water.

CONVERSION CHART

FLOW RATE

litre per second l/s	litre per minute l/min	cubic meter per hour m ³ /h	cubic foot per hour ft ³ /h	cubic foot per minute ft ³ /min	Imp.gallon per minute Imp.gal./min	US gallon per minute Us gal./min	Us barrel per day ls barrel/d (Petroleum)
1	60	3.6	127.133	2.1189	13.2	15.85	543.439
0.017	1	0.06	2.1189	0.0353	0.22	0.264	9.057
0.278	16.667	1	35.3147	0.5886	3.666	4.403	150.955
0.008	0.472	0.0283	1	0.0167	0.104	0.125	4.275
0.472	28.317	1.6990	60	1	6.229	7.480	256.475
0.076	4.546	0.2728	9.6326	0.1605	1	1.201	41.175
0.063	3.785	0.2271	8.0209	0.1337	0.833	1	34.286
0.002	0.110	0.0066	0.2339	0.0039	0.024	0.029	1

LIQUID

Cubic meter m ³	litre l	Milli litre ml	Imp. gallon Imp. Gal	US gallon US gal	cubic foot ft ³
1	1000	1 x 10 ⁶	220	264.2	35.3147
0.001	1	1000	0.22	0.2642	0.0353
1 x 10 ⁻⁵	0.001	1	2.2 x 10 ⁻⁴	2.642 x 10 ⁻⁴	3.53 x 10 ⁻⁵
0.00455	4.546	4546	1	1.201	0.1605
0.00378	3.785	3785	0.8327	1	0.1337
0.0283	28.317	28317	6.2288	7.4805	1

LIQUID HEAD AND PRESSURE

newton per square meter N/m ² (Pa)	kilo pascal kPa	bar bar	kilogram force per square centimeter Kgf/cm2	pound force per square inch psi	foot for water ft H ₂ O	meter of water m H ₂ O	millimeter of mercury mm Hg	inch of mercury in Hg
1	0.001	1 x 10 ⁻⁵	1.02 x 10 ⁻⁵	1.45 x 10 ⁻⁴	3.35 x 10 ⁻⁴	1.02 x 10 ⁻⁴	0.0075	2.95 x 10 ⁻⁴
1000	1	0.01	0.0102	0.145	0.335	0.102	7.5	0.295
1 x 10 ⁻⁵	100	1	1.02	14.5	33.52	10.2	750.1	29.53
98,067	98.07	0.981	1	14.22	32.81	10	735.6	28.96
6895	6.895	0.069	0.0703	1	2.31	0.703	51.72	2.036
2984	2.984	0.03	0.0305	0.433	1	0.305	22.42	0.882
9789	9.789	0.098	0.1	1.42	3.28	1	73.42	2.891
133.3	0.133	0.0013	0.0014	0.019	0.045	0.014	1	0.039
3386	3.386	0.0338	0.0345	0.491	1.133	0.0345	25.4	1

LENGTH

millimeter mm	centimeter cm	meter m	inch in	foot ft	yard yd
1	0.1	0.001	0.0394	0.0033	0.0011
10	1	0.01	0.3937	0.0328	0.0109
1000	100	1	39.3701	3.2808	1.0936
25.4	2.54	0.0254	1	0.0833	0.0278
304.8	30.48	0.3048	12	1	0.3333
914.4	91.44	0.9144	36	3	1

1 Kilometer = 1000 metres = 0.62137 miles 1 mile = 1609.37 metres = 1.60934 kilometers

MASS

kilogram kg	pound lb	hundred weight (cwt)	tonne t	ton long tn	short ton sh tn
1	2.205	0.0197	0.001	9.84 x 10 ⁻⁴	0.0011
0.454	1	0.0089	4.54 x 10 ⁻⁴	4.46 x 10 ⁻⁴	5.0 x 10 ⁻⁴
50.802	112	1	0.0508	0.05	0.056
1000	2204.6	19.684	1	0.9842	1.1023
1016	2240	20	1.0161	1	1.102
907.2	2000	17.857	0.9072	0.8929	1

TEMPERATURE

To Convert From	To	Use Formula
Temperature Celsius, tc	Temperature Kelvin, tk	K = tc + 273.15
Temperature Fahrenheit, tf	Temperature Kelvin, tk	K = (tf + 459.67 / 1.8)
Temperature Celsius, tc	Temperature Fahrenheit, tf	F = 1.8 tc + 32
Temperature Fahrenheit, tf	Temperature Celsius, tc	C = (tf - 32) / 1.8
Temperature Kelvin, tk	Temperature Celsius, tc	C = tk - 273.15
Temperature Kelvin, tk	Temperature Fahrenheit, tf	F = 1.8tk - 459.67

The Company reserves the right to modify the technical specifications and illustrations without prior notice.

Notes : _____

[illegible]



T H E P O W E R B E H I N D T H E F O R C E

Naargo Industries Private Limited, one of the leading manufacturers of latest state of art, large range of pumps and motors, is managed by veterans who are in the pump industry for almost half a century. The products are employed in various applications like irrigation, domestic, civil construction, de-watering etc; The Company has a strong distribution network in India for sales & service and a strong global presence.

Quality is the key factor in Naargo's products. The expansive infrastructure and environment accredited with ISO 9001 quality certification, latest engineering softwares, high-tech machinery, futuristic pumping technology and high caliber workforce facilitate the production of flawless and efficient products on par with international standards under the brand name of "Tormac". The well equipped R & D wing stays alive to the changing global trends and comes out with viable solutions for innovative product development and upgradation.

The Products currently available include Stainless Steel Submersible Pumps, 4" Thermoplastic Submersible Pumps, 6" & 8" Cast Iron Submersible Pumps, Submersible Motors and Controls, Centrifugal Pumps, Inline Booster Pumps, Jet Self-priming Pumps and Peripheral Pumps.

The power, performance and endurance of the products backed by the uncompromising teamwork and value systems will certainly propel the company's growth towards new horizons in the pump industry.

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