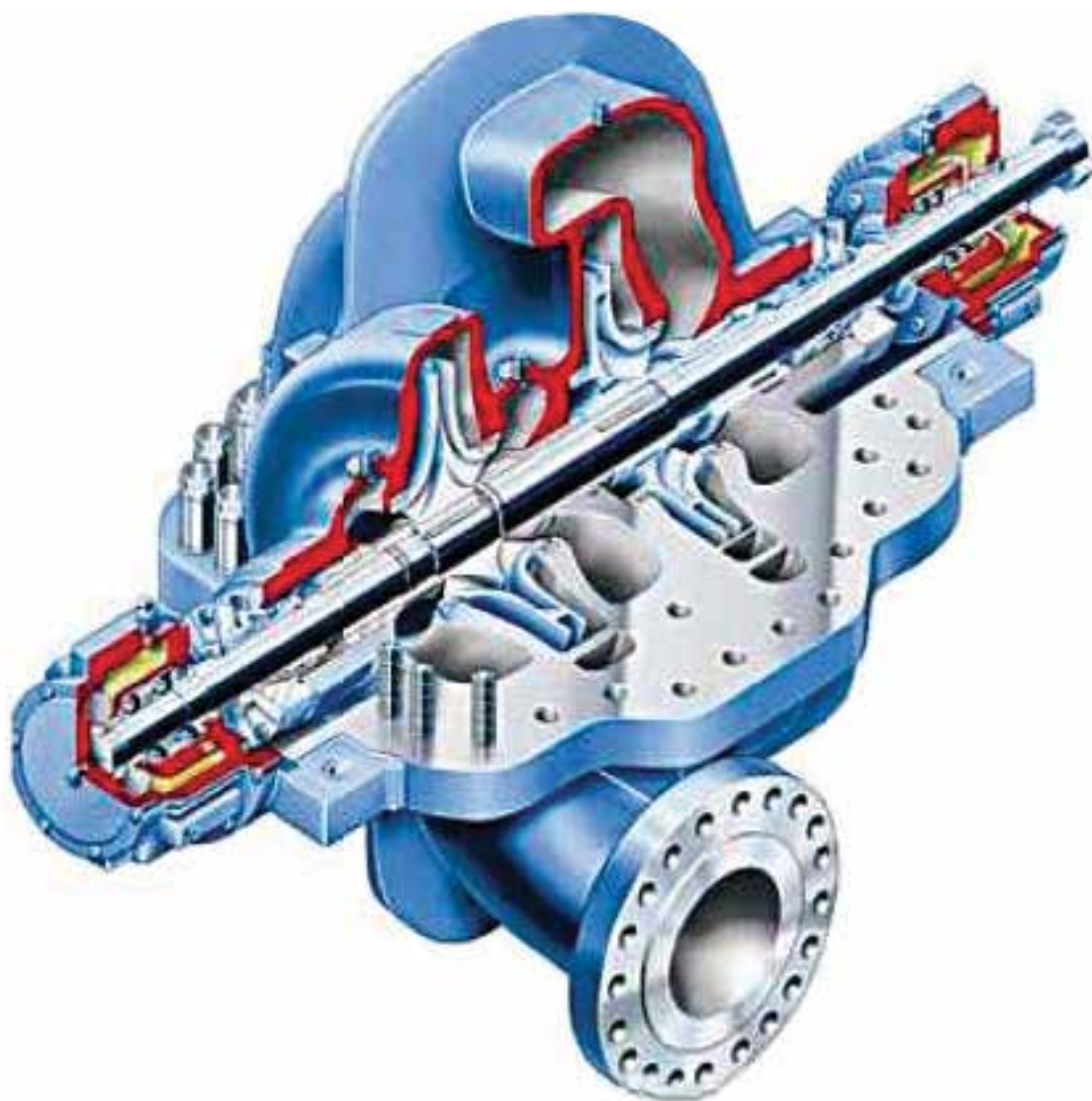




U series

Horizontal Split Case Pumps



U series

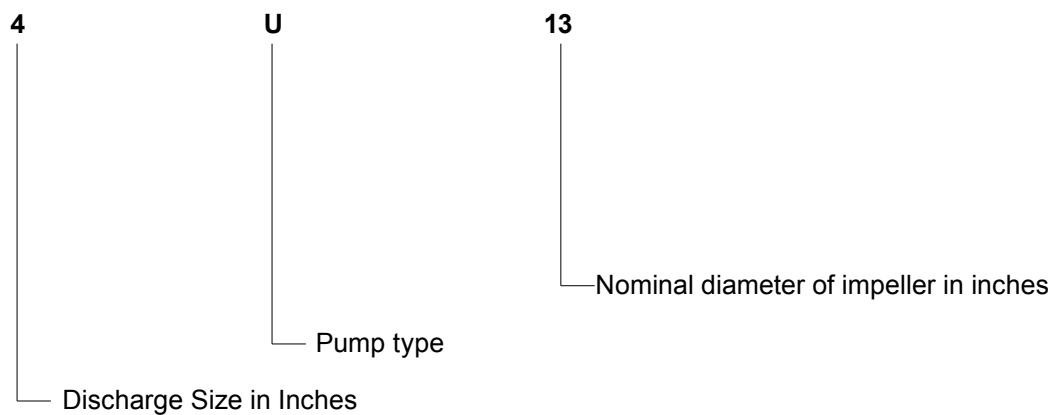
Sizes: 2" to 18"

Capacity to 600 m³/h

Heads to 150 metres

A rugged, split volute, 2 stage single suction horizontal split case centrifugal pump.

Nomenclature



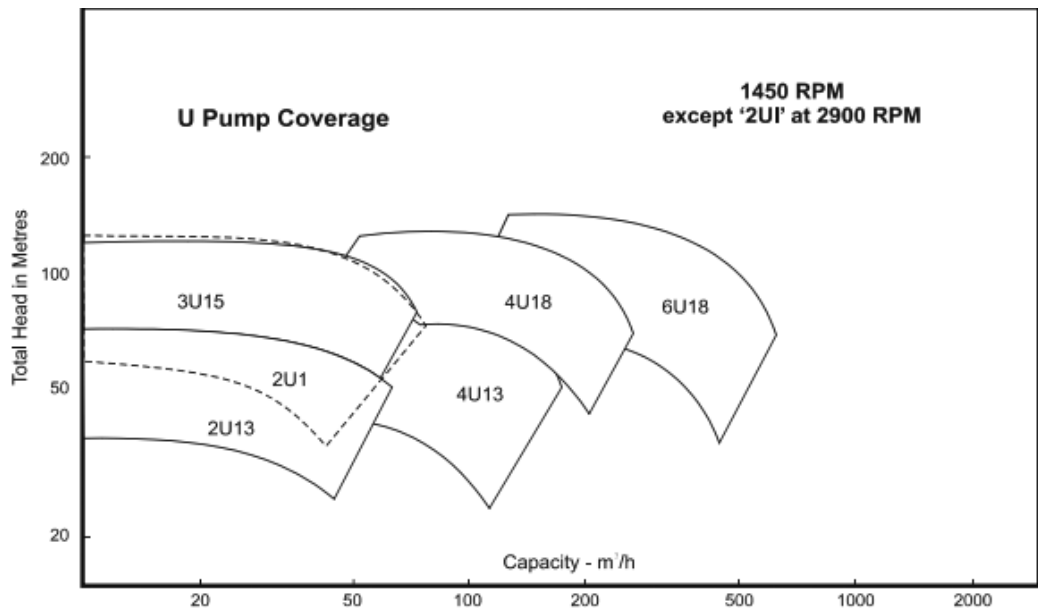
Features

- Axially Split Case Design
- Range from 20m³/h to 600m³/h
- Two Stage Pump
- Single Suction Twin Volute Casing Design – Closed type Impeller
- Suction/Discharge branches integrally cast with casing.

Advantages

- Balanced Axial Loading
- Can operate almost at shut-off capacity without excessive deflection
- Rugged design & High efficiency
- Ease of maintenance
- Low noise & vibration

Range Chart of U series Pumps



Specifications

Casing: The horizontal split casing is designed to produce a smoother flow with gradual changes in velocity. The twin volute casing having the tongues spaced at 180° apart balances the hydraulic radial thrust. The suction and discharge nozzles are cast integral with the lower half casing. The cross over is cast in the upper half of the casing, which gives an inherently rigid design necessary for high pressure applications. Renewable case rings are locked in place and protected against rotation using pins. The interior of the pump can be easily inspected without disrupting the pipe connections or pump alignment by removing the upper half of the casing.

Impeller: Two single-suction impellers are placed back to back to eliminate axial thrust. They are firmly secured to the shaft by means of a key.

Shaft: The shaft is of heat-treated steel ground to accurate dimensions and polished to a smooth surface. The renewable shaft sleeves extending through the stuffing boxes protect the shaft at gland packed areas. The sleeves are secured in lateral position by external shaft nuts and the slippage between sleeves and shaft is prevented by extending the Impeller key into the hubs of sleeves. Leakage through sleeve is eliminated by means of "O" ring located between shaft and sleeve.

Bearing Housing: The accurately machined bearing housings are fitted to the bottom half casing. The perfect alignment between casing and housings results in accurate alignment between rotor and casing. The single-row deep-groove type ball bearings can be either oil-lubricated or grease lubricated.

Packing/Mechanical Seal: Based on the application, the pump can be either with gland-packed execution or with mechanical seal.

Applications

- Industrial Water Supply
- Agriculture
- Fire Fighting
- Mine Dewatering
- Boiler Fill
- Utilities

Materials of Construction

FITTING	STANDARD FITTED	ALL IRON FITTED	ALL BRONZE FITTED	S STEEL FITTED
CASING	CAST IRON	CAST IRON	BRONZE	S STEEL
IMPELLER	CAST IRON	CAST IRON	BRONZE	S STEEL
CASING RINGS	CAST IRON	CAST IRON	BRONZE	S STEEL
GLAND	CAST IRON	CAST IRON	BRONZE	S STEEL
SHAFT	STEEL	STEEL	S STEEL	S STEEL
SHAFT SLEEVES	S STEEL	STEEL	S STEEL	S STEEL
SHAFT NUTS	S STEEL	STEEL	S STEEL	S STEEL
BEARING HOUSING	CAST IRON	CAST IRON	CAST IRON	CAST IRON
BEARING	SKF OR EQUAL ANTI - FRICTION TYPE			
PACKING	GRAPHITE IMPREGNATED ASBESTOS			
BASE PLATE	FABRICATED STEEL			
COUPLING	PIN BUSH			

* OPTIONAL PUMPS IN HIGHER ALLOYS LIKE DUPLEX STEEL ETC. CAN BE SUPPLIED.

FLANGE DATA	ANSI B 16.5 CLS. 150											
	2	2 1/2	3	4	5	6	8	10	12	14	16	18
NOZZLE SIZE (INCH)	2	2 1/2	3	4	5	6	8	10	12	14	16	18
O.D FLANGE (MM)	152	178	191	229	254	279	343	406	483	535	595	635
FLANGE THICKNESS (MM)	19.5	22.5	24	24	24	25.5	29	30.5	32	35	37	40
NO. OF BOLT HOLES	4	4	4	8	8	8	8	12	12	12	16	16
SIZE BOLT HOLES (MM)	20	20	20	20	23	23	23	26	26	29	29	32
BOLT CIRCLE DIA. (MM)	120.5	139.7	152.4	190.5	215.9	241.3	298.4	361.9	431.8	476.2	539.7	577.8

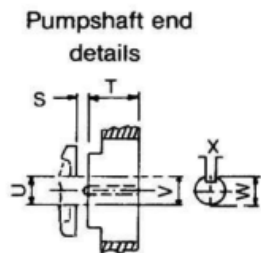
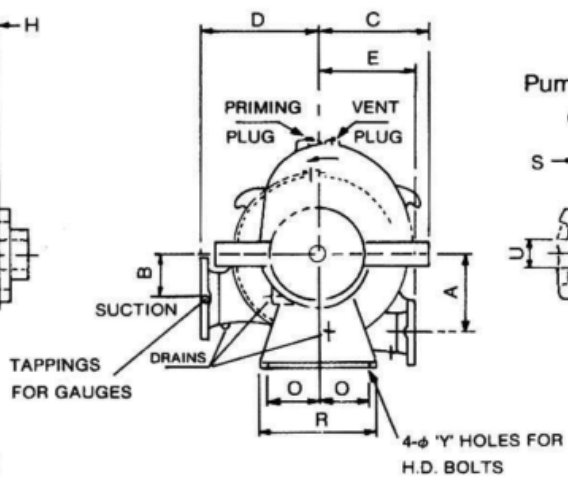
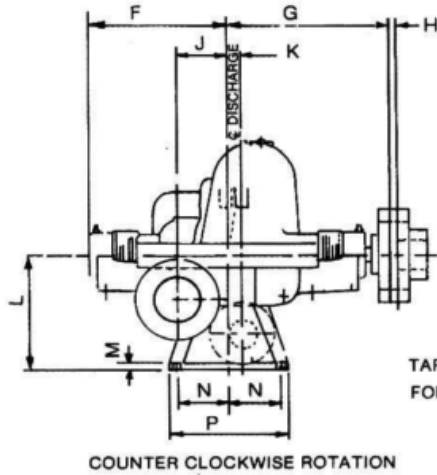
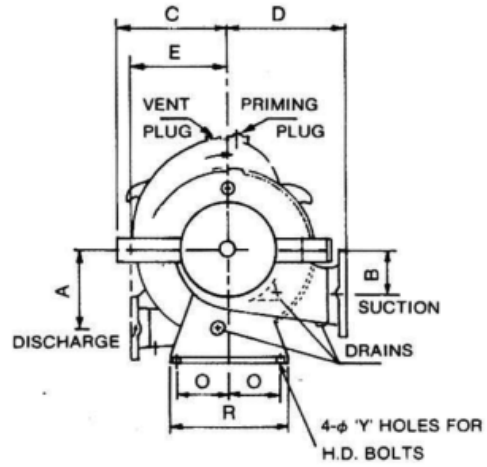
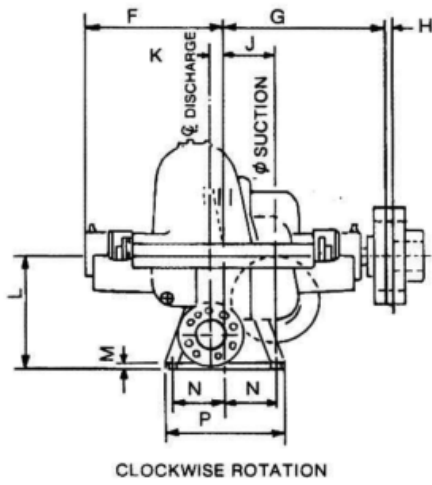
Engineering Data

U series

PUMP SIZE	DISCHARGE SIZE	SUCTION SIZE	CASING THICKNESS	GD2 (Kg m ²) ROTATING ELEMENT (WET) MAX IMP DIA	SHAFT			SLEEVE OUTSIDE DIA	STUFFING BOX	
					DIA AT IMP	DIA AT SLEEVE	DIA AT COUPLING		BORE	DEPTH
2U1	50	80	14	0.229	31,7	28,5	23,8	28,5	47,6	58,7
2U13	50	80	14	2.064	40,0	35,0	34,0	35,0	59,0	72,0
3U15	80	125	17	3.317	55,0	55,0	38,0	65,0	97,0	100,0
4U13	100	150	14	3.880	60,0	60,0	48,0	70,0	95,0	105,0
4U18	100	150	19	9.542	60,0	60,0	48,0	70,0	95,0	105,0
6U18	150	200	20	10.340	75,0	75,0	55,0	85,0	110,0	105,0

PUMP SIZE	PACKING		BEARINGS (RHP)		MAX. BORE STD MOTOR HALF COUPLING	MAX. CASING WORKING PRESSURE bar	HYDRAULIC TEST PRESSURE bar	BARE PUMP WEIGHT Kg	STANDARD SUCTION & DISCHARGE FLANGE RATING
	SIZE	NO OF RINGS	DRIVE END	FAR END					
2U1	9,5	4	6305	4305	45	17,2	25,4	195	CI 150 ANSI B 16,5
2U13	12,0	4	6405	6307	45	16,0	24,0	259	CI 150 ANSI B 16,5
3U15	10,0	4	6208	6208	45	16,0	24,0	550	CI 150 ANSI B 16,5
4U13	12,5	6	6310	6310	50	16,0	24,0	650	CI 150 ANSI B 16,5
4U18	12,5	6	6310	6310	100	16,0	24,0	870	CI 150 ANSI B 16,5
6U18	12,5	6	6313	6313	100	16,0	24,0	951	CI 150 ANSI B 16,5

Dimensions



PUMP SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	O	R	S	T	U	V	W	X	Y	SEAL SIZE	FLANGE SUCT.	BORE DISC
2U1	140	105	-	238	197	291	349	6.4	89	32	310	22	121	298	95	260	17	46	24.6	23.8	26.5	6.3	19	30	80	50
2U13	200	145	-	300	280	337	389	6.4	80	28	390	24	125	300	125	320	9.5	46	35	34	37.2	10	19	35	80	50
3U15	240	140	333	340	310	420	510	6.4	125	31	350	24	155	360	165	380	12	82	40	38	41.3	10	22	65	125	80
4U13	230	150	321	360	330	474	566	6.4	155	40	350	24	175	400	175	400	10	86	50	48	51.5	14	22	70	150	100
4U18	270	150	375	400	330	474	566	6.4	170	46	390	24	175	400	175	400	10	86	50	48	51.5	14	22	70	150	100
6U18	310	310	434	550	400	504	622	6.0	214	64	500	24	240	530	240	530	20	101	65	55	58.8	16	22	85	200	150

All dimensions in mm



Axially Split, Two stage,
Single - Suction
Volute Pump

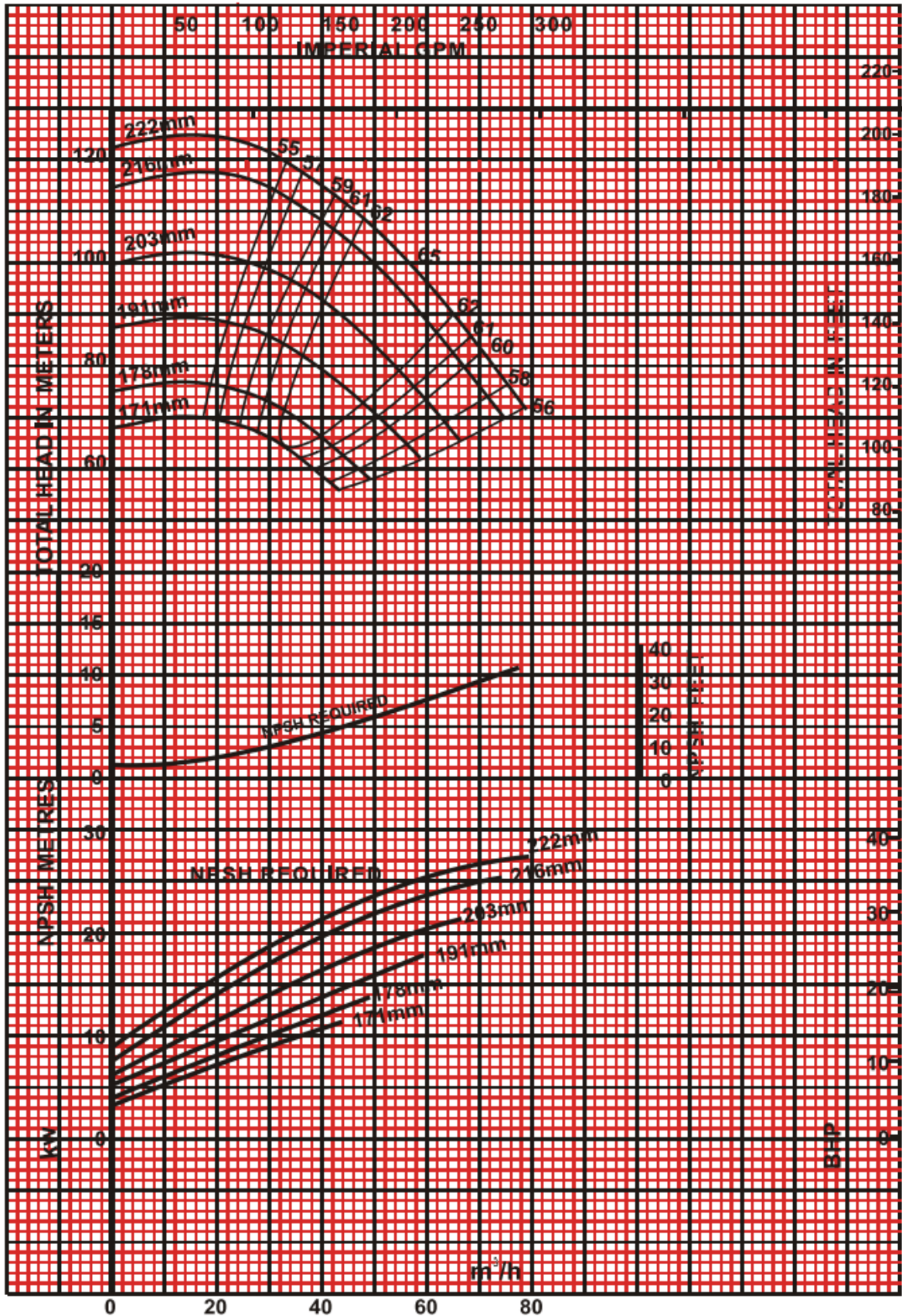
PUMP MODEL
2 U 1

SPEED
2900 RPM

CURVES BASED ON COLD WATER

CURVE SHEET NO.:

TYPE U



Eye Area total	cm ²	Suction Flange	80mm	3 inches
		Discharge Flange	50mm	2 inches



Axially Split, Two stage,
Single - Suction
Volute Pump

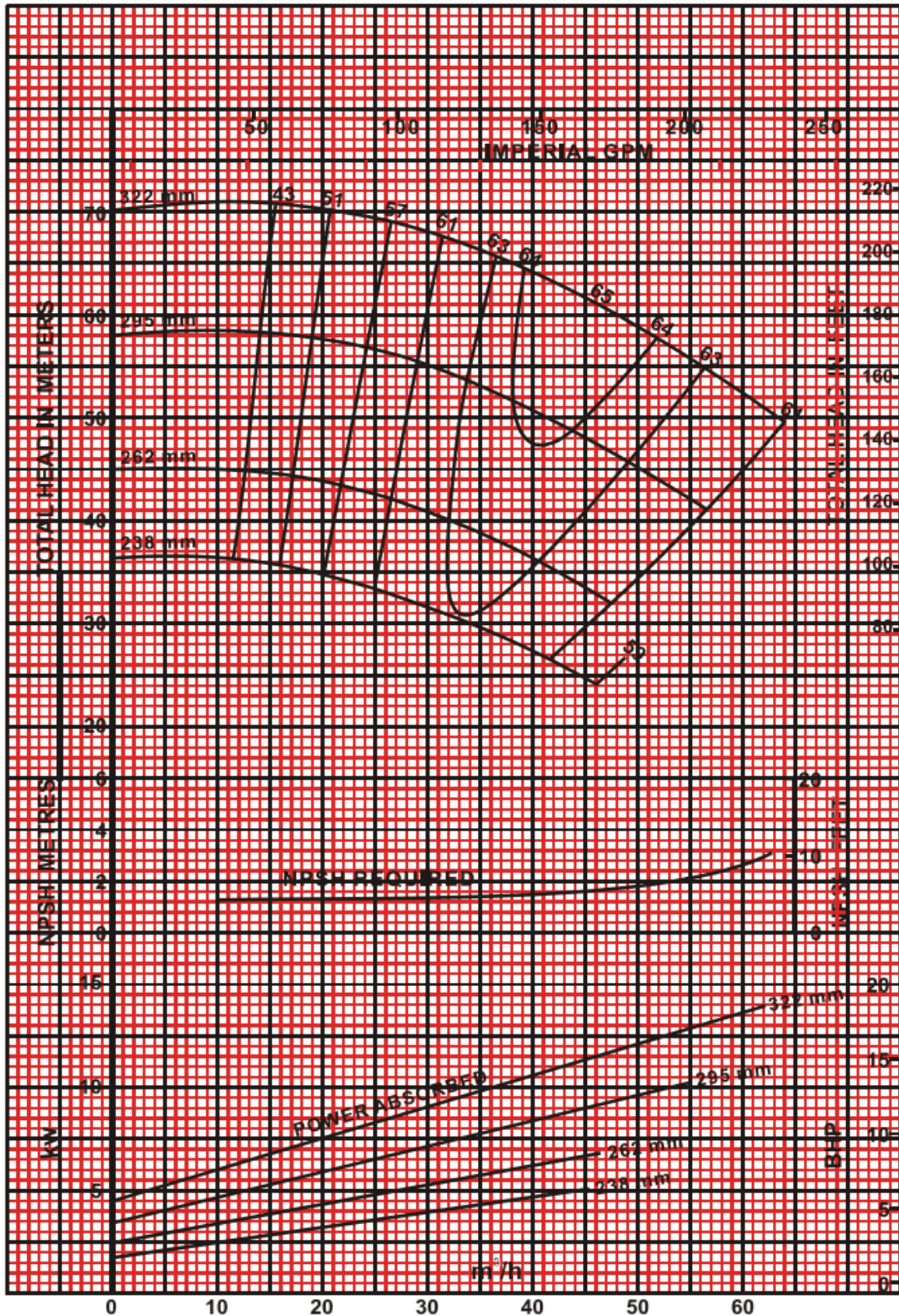
PUMP MODEL
2 U 13

SPEED
1460 RPM

CURVES BASED ON COLD WATER

CURVE SHEET NO.:

TYPE U



Eye Area total	cm ²	Suction Flange	80mm	3 inches
		Discharge Flange	50mm	2 inches



Axially Split, Two stage,
Single - Suction
Volute Pump

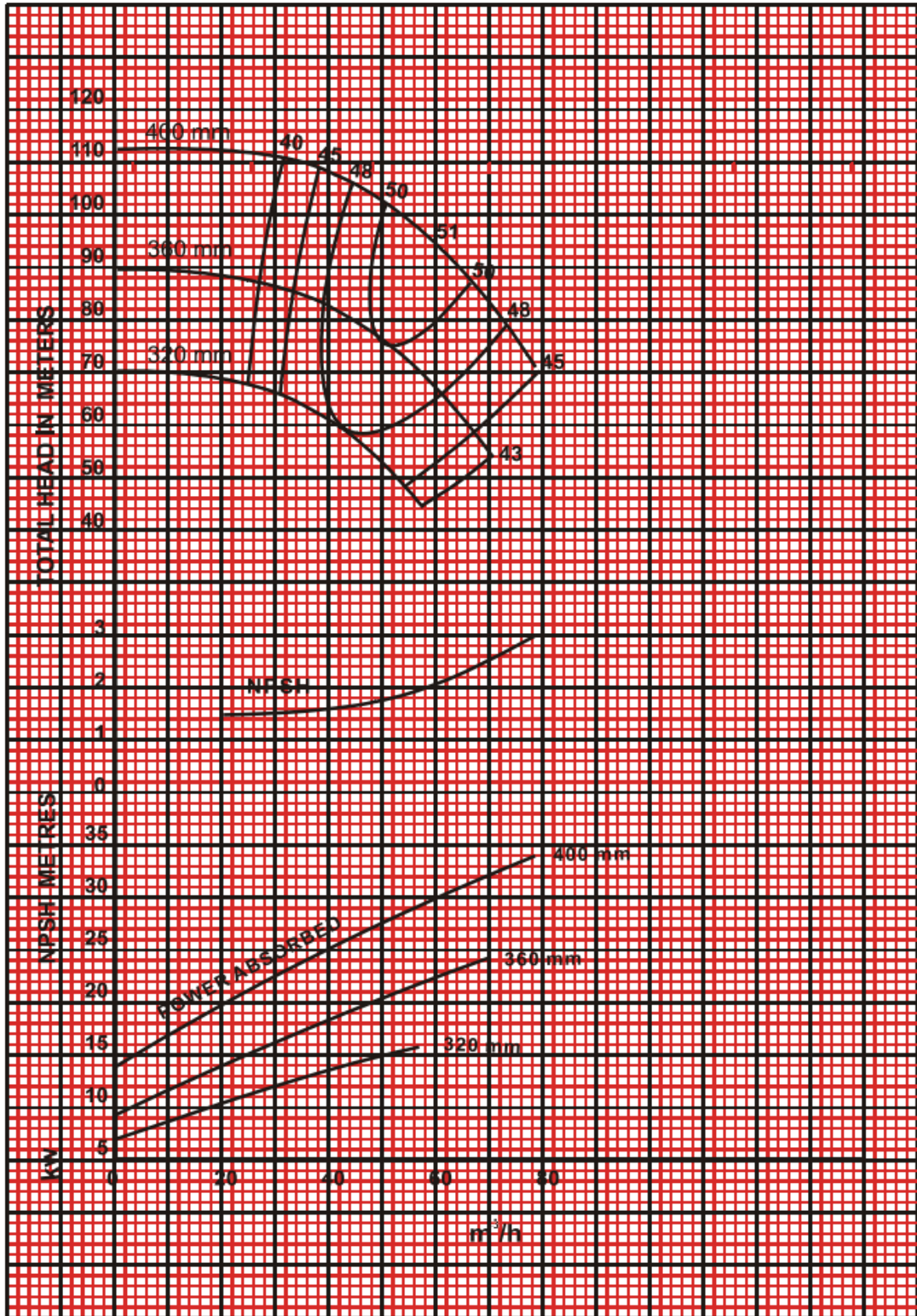
PUMP MODEL
3 U 15

SPEED
1460 RPM

CURVES BASED ON COLD WATER

CURVE SHEET NO.:

TYPE U



Eye Area total	cm ²	Suction Flange	125mm	5 inches
		Discharge Flange	80mm	3 inches



Axially Split, Two stage,
Single - Suction
Volute Pump

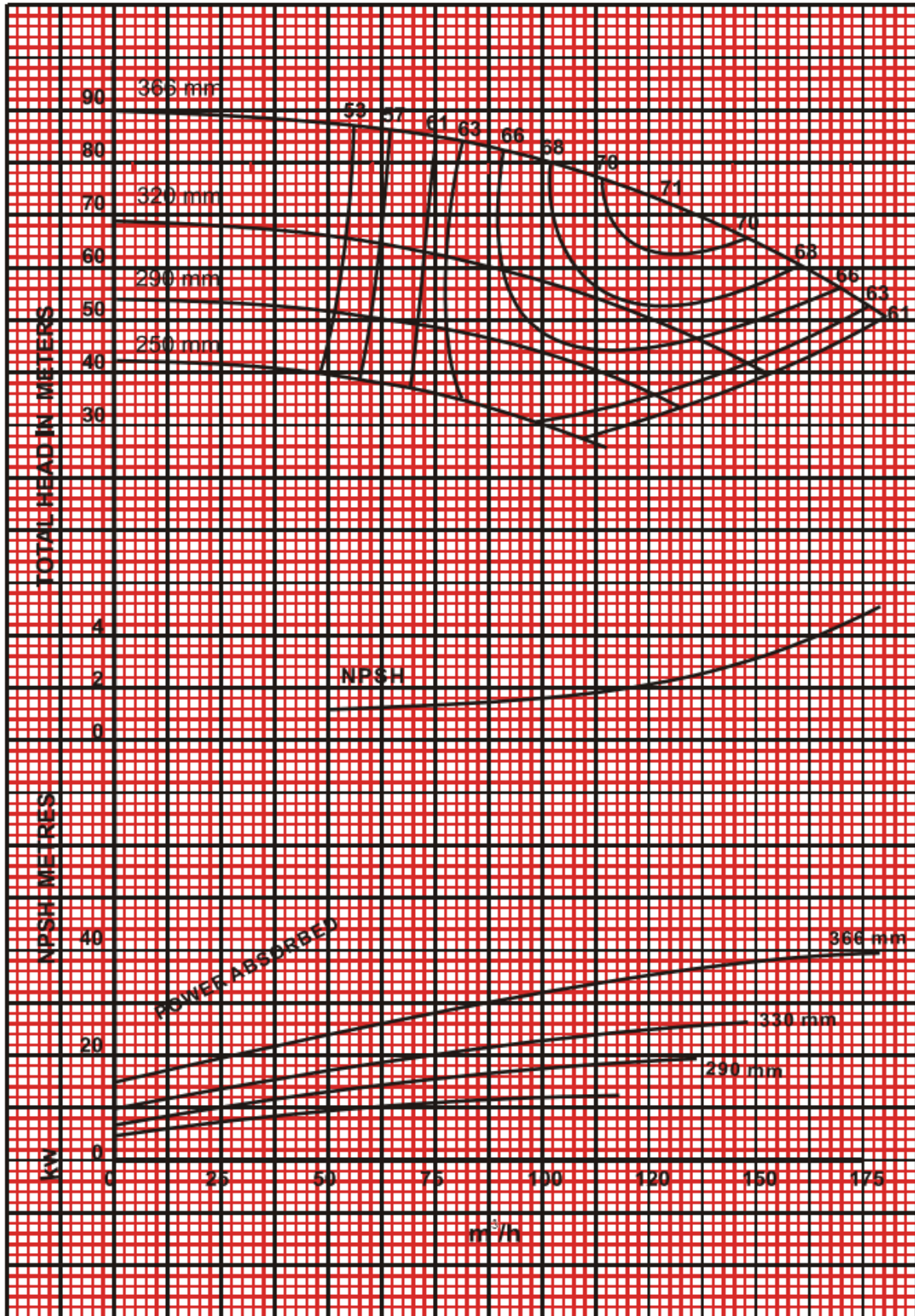
PUMP MODEL
4 U 13

SPEED
1460 RPM

CURVES BASED ON COLD WATER

CURVE SHEET NO.:

TYPE U



Eye Area total	cm ²	Suction Flange	150mm	6 inches
		Discharge Flange	100mm	4 inches



Axially Split, Two stage,
Single - Suction
Volute Pump

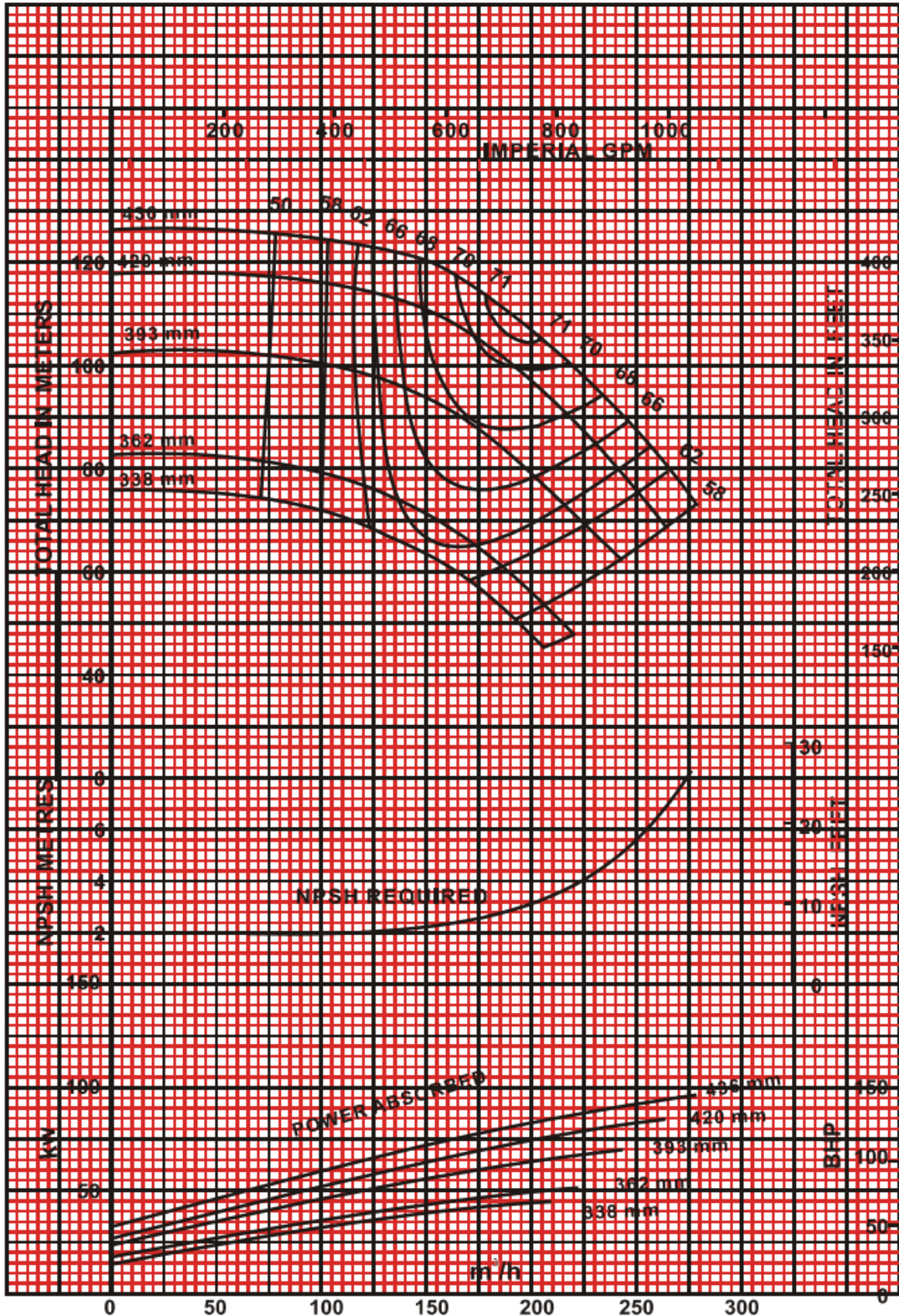
PUMP MODEL
4 U 18

SPEED
1460 RPM

CURVES BASED ON COLD WATER

CURVE SHEET NO.:

TYPE U



Eye Area total	cm ²	Suction Flange	150mm	6 inches
		Discharge Flange	100mm	4 inches



Axially Split, Two stage,
Single - Suction
Volute Pump

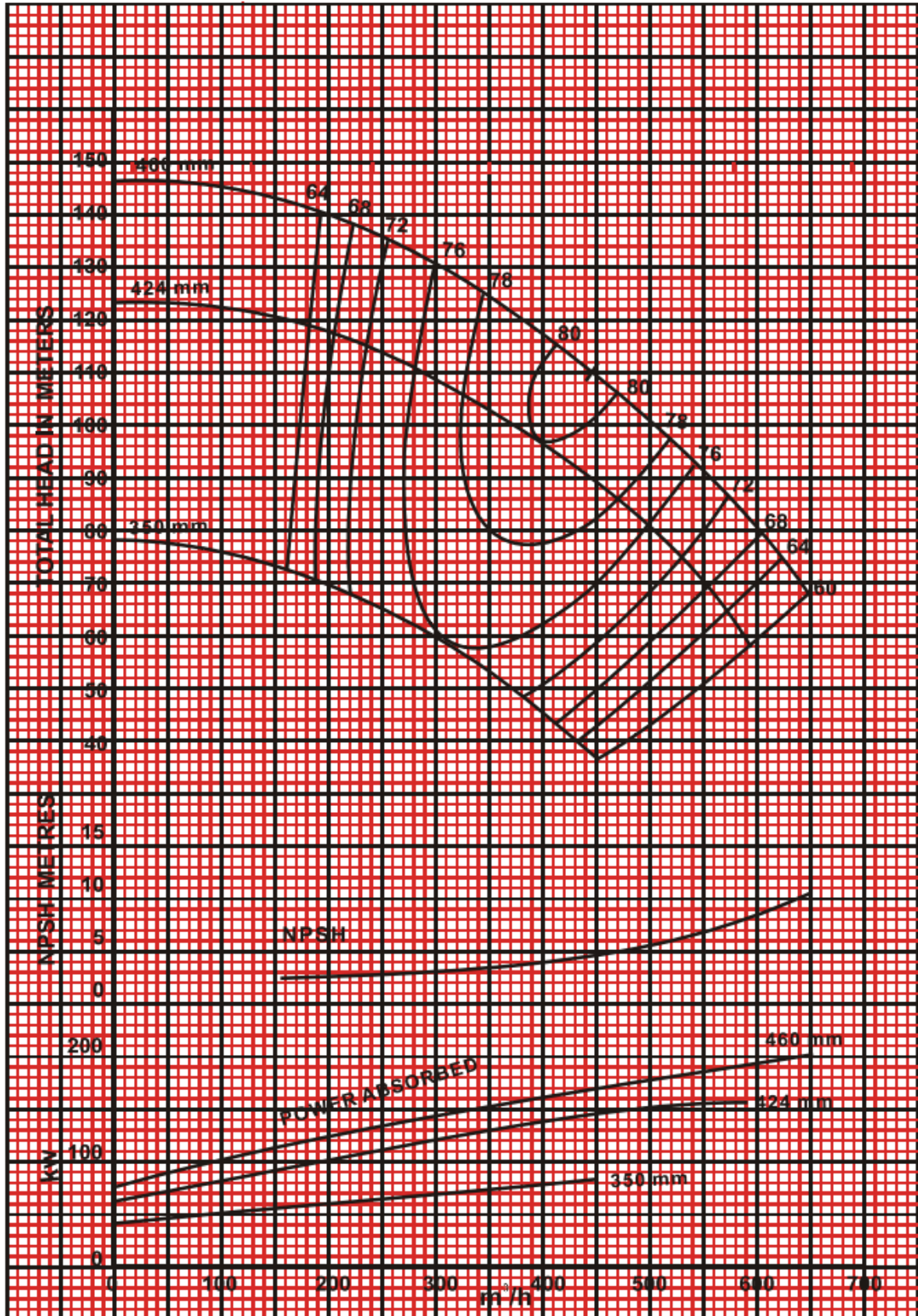
PUMP MODEL
6 U 18

SPEED
1460 RPM

CURVES BASED ON COLD WATER

CURVE SHEET NO.:

TYPE U



Eye Area total	cm ²	Suction Flange	200mm	8 inches
		Discharge Flange	150mm	6 inches



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