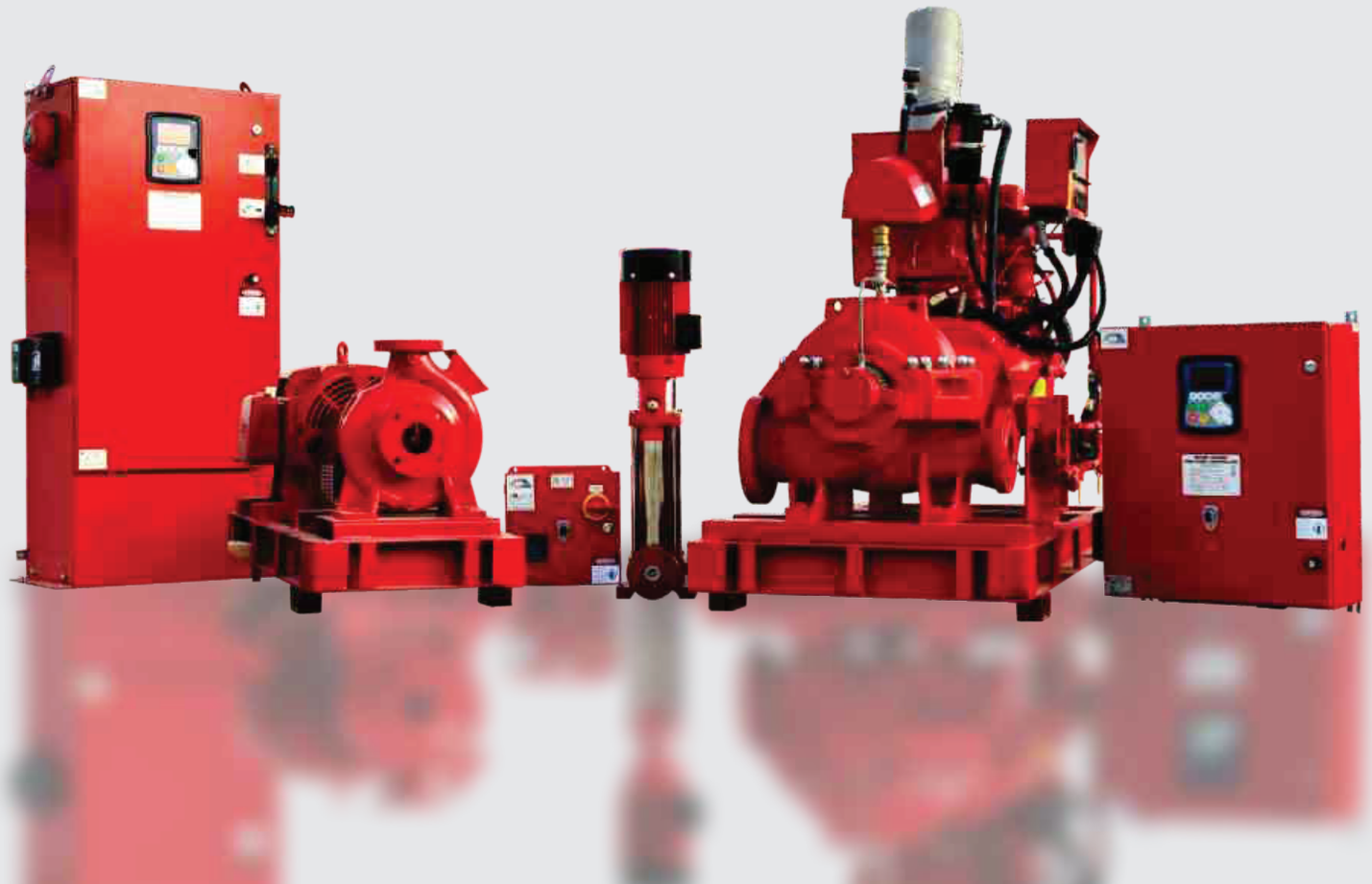
Starlone

VERTICAL SPLIT-CASE PUMPS

Att

MEGA FORCE®

Starlone



FIRE PUMP SINGAPORE PTE LTD

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Shandong Facility

ABOUT FIRE PUMP SINGAPORE (FPS)

FPS, with it's 20 years of experience has always been a progressive organization that has remained in the forefront of the Fire Fighting Industry with innovative, unconventional, environmental friendly, re-engineered and unique products.

FPS in its state-of-the-art manufacturing plants in **China** works in close connections with renowned governmental and certification bodies to provide key answers to the challenges faced by the society.

FPS brings together over 2-Decades of expertise and experience in form of **Design**, **Consultancy**, **Manufacturing**, **Supply**, **Installation**, **Testing**, **Commissioning**, **Maintenance & Refurbishment** of fire protection and fire fighting systems.

FPS CERTIFIED FACILITY FOR FIRE PUMP SYSTEMS

TESTING FACILITY AND ASSEMBLY LINE

FPS has established a fully equipped AS2941 Pump Testing facility with advance testing and calibration devices that enable to accurately inspect and test the operation of each Centrifugal Stationery Fire Pump to the required level of compliance standard as per AS2941.

The Fire Pumps then undergo various processes in our modern well organized manufacturing and assembly line.

Before delivering to our customers, each pump undergoes necessary inspection, tests and production control, during the Assembly process, for which all records are maintained.

PERFORMANCE TESTS

Performance curves are plotted within the FPS AS2941 **Approved Pump Testing** Facility showing the Efficiency, Break-Horsepower(kw), and Total Head developed at shutoff, at rated capacity, at 150%of rated capacity, and at selected intermediate capacities between shutoff and maximum capacities exceeding 150% of rated capacity.

FPS CERTIFIED FACILITY FOR FIRE PUMP SYSTEMS

HYDROSTATIC TEST

Each pump is to be tested hydro-statically for not less than 5 minutes. The test pressure is to be up to 2 times the maximum working pressure of the pump, but in no case less than 250psi (1724 kPa) to ensure no rupture or leakage through the castings at the test pressure.

IMPELLER BALANCING

The impellers of each pump shall be dynamically balanced to the G6.3 balance quality grade in accordance with the requirements for pump impellers in the Standard for Mechanical Vibration -Balance Quality.

VERTICAL SPLIT-CASE PUMPS

DESIGN & OPERATION FEATURES

Excellent hydraulic performance, high efficiency, good cavitation performance.

Staggered vane construction for changing the rate of impeller through pump tongue, which decrease the liquid pulse 1‰～4‰ of the head, more stable flow, higher efficiency, less vibration, working more steady.

For casing, using ANSYS for optimizing structure, high-intensity.

For bearing, with short span, thicken shaft, which makes small deflection when rotator running, and works more stable.

The shaft is full sealing no touch with liquid, bearing parts are oil lip sealing and V-type sealing ring, which protect against leaking, dust, water and humidity.

Pump inlet and outlet flange could be by ISO, DIN, BS, ANSI, KS standards etc.

Bearing lubrication, grease for standard, oil for customized.

Shaft sealing is packing seal interchangeable with single end surface seal, or mechanical seal, double seal or flushing system by standard API682.

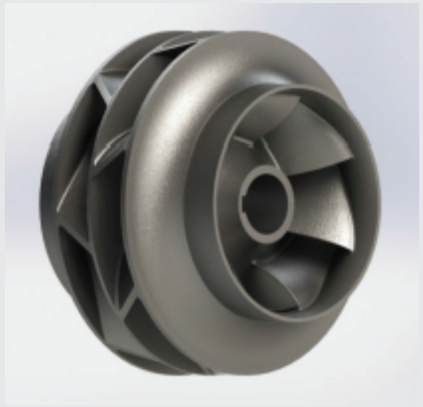
Bearing is assembled with interface for testing temperature and vibration, convenient for remote control.

Except pump casing, cover, impeller etc, the other parts is modular designed and standardize; bearing, sealing part, shaft sleeve are all could be interchangeable.

Pump rotation is clockwise from driven.

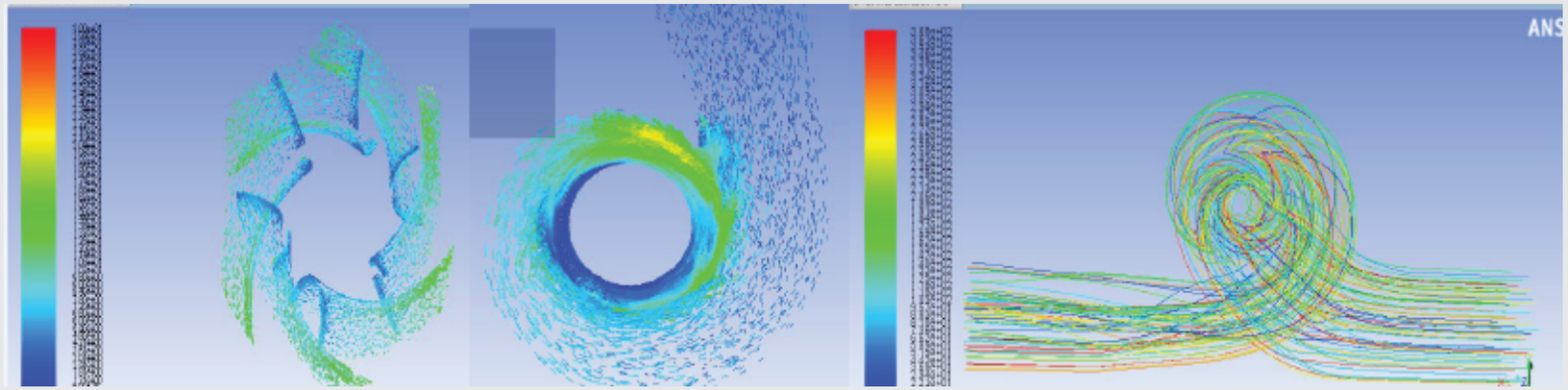
VERTICAL
SPLIT-CASE PUMPS

SPECIAL FEATURES AND PERFORMANCE ANALYSIS



Staggered vane construction creates more stable flow and decreases pressure pulsation.

Double curvature, streamline inlet, high efficiency, good cavitation performance.



Analyzing by CFD, pump efficiency is improved to 92%.

VERTICAL SPLIT-CASE PUMPS

PERFORMANCE RANGE

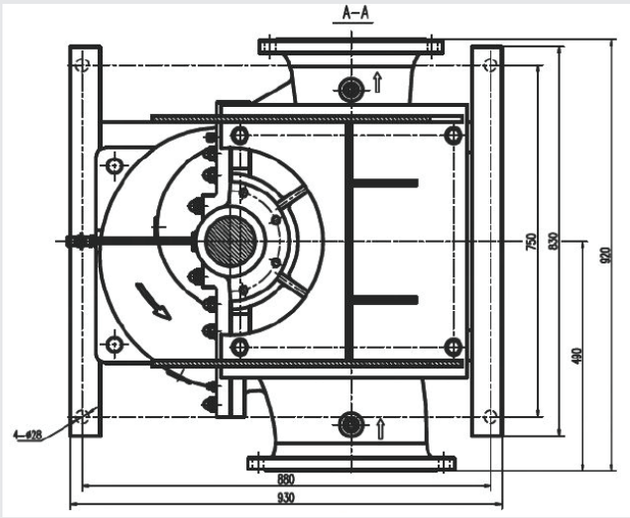
Capacity	： 100～30000m3/h
Head	：7～220m
Efficiency	：92%
Power	：15～4000kW
Inlet Dia.	： 150～1600mm
Outlet Dia.	： 100～1400mm
Working Pressure	: ≤2.5MPa
Temperature	: -20℃～80 ℃

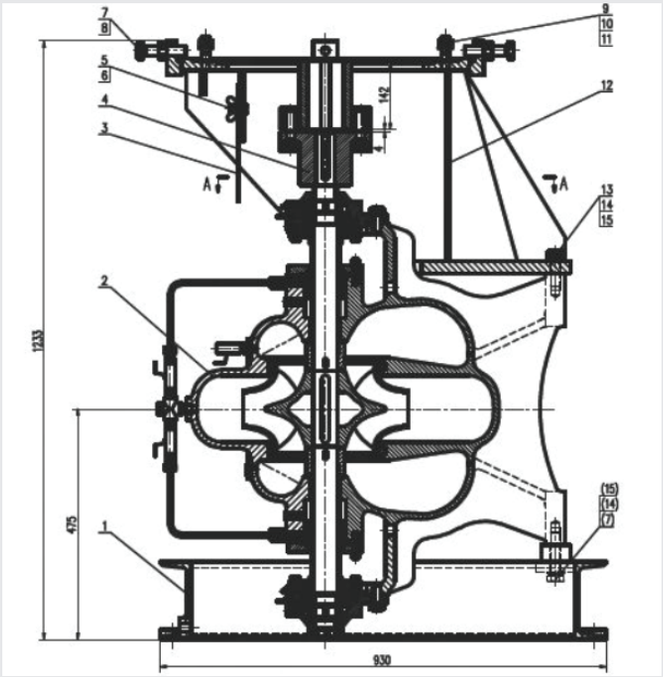
APPLICATIONS

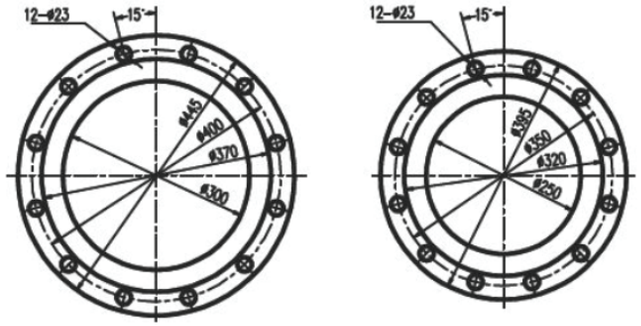
Power industry
Papermaking industry
Iron and steel industry
The petrochemical industry
Water industry
Desalination of sea water

HORIZONTAL SPLIT-CASE PUMPS

SECTIONAL DRAWING







1, Baseplate	2, Pump casing	3, Shield	4, Coupling parts
5, Bolt	6, Wing nut	7, Bolt	8, I-nut
9, Headed bolt	10, I-nut	10, Gasket	11, Motor base
12, Bolt	13, Bolt	14, spring gasket	15, gasket

VERTICAL
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NOMENCLATURE

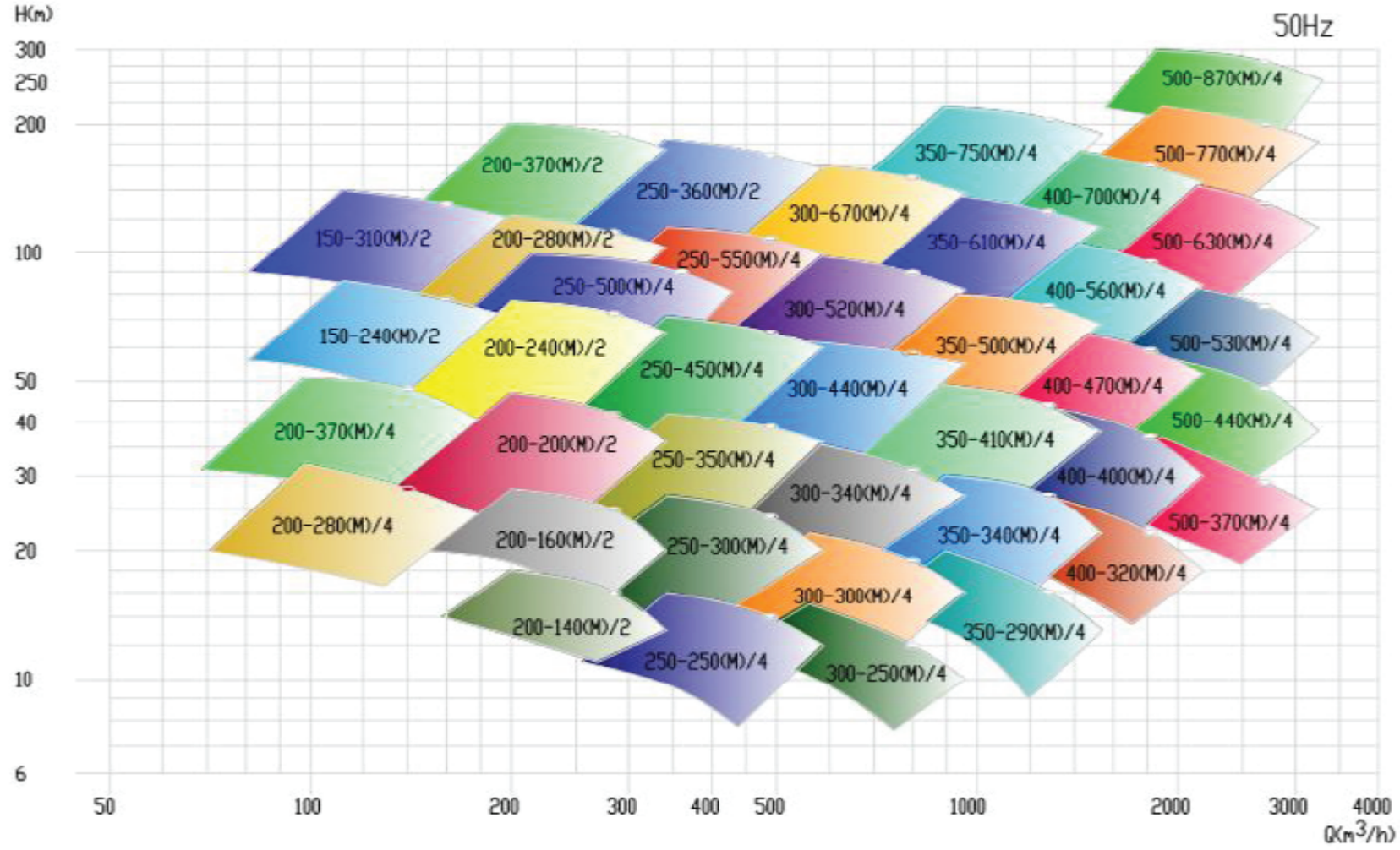
CPS V ### - xxx (M) A / &

CPS - standard series code
V - vertical type
- pump inlet diameter
xxx - impeller nominal diameter
(M) - impeller Type
A - code of cuting of impeller diameter
& - number of poles driving the motor

VERTICAL
SPLIT-CASE PUMPS

PUMP SELECTION BASED ON FLOW AND PRESSURE - 50Hz

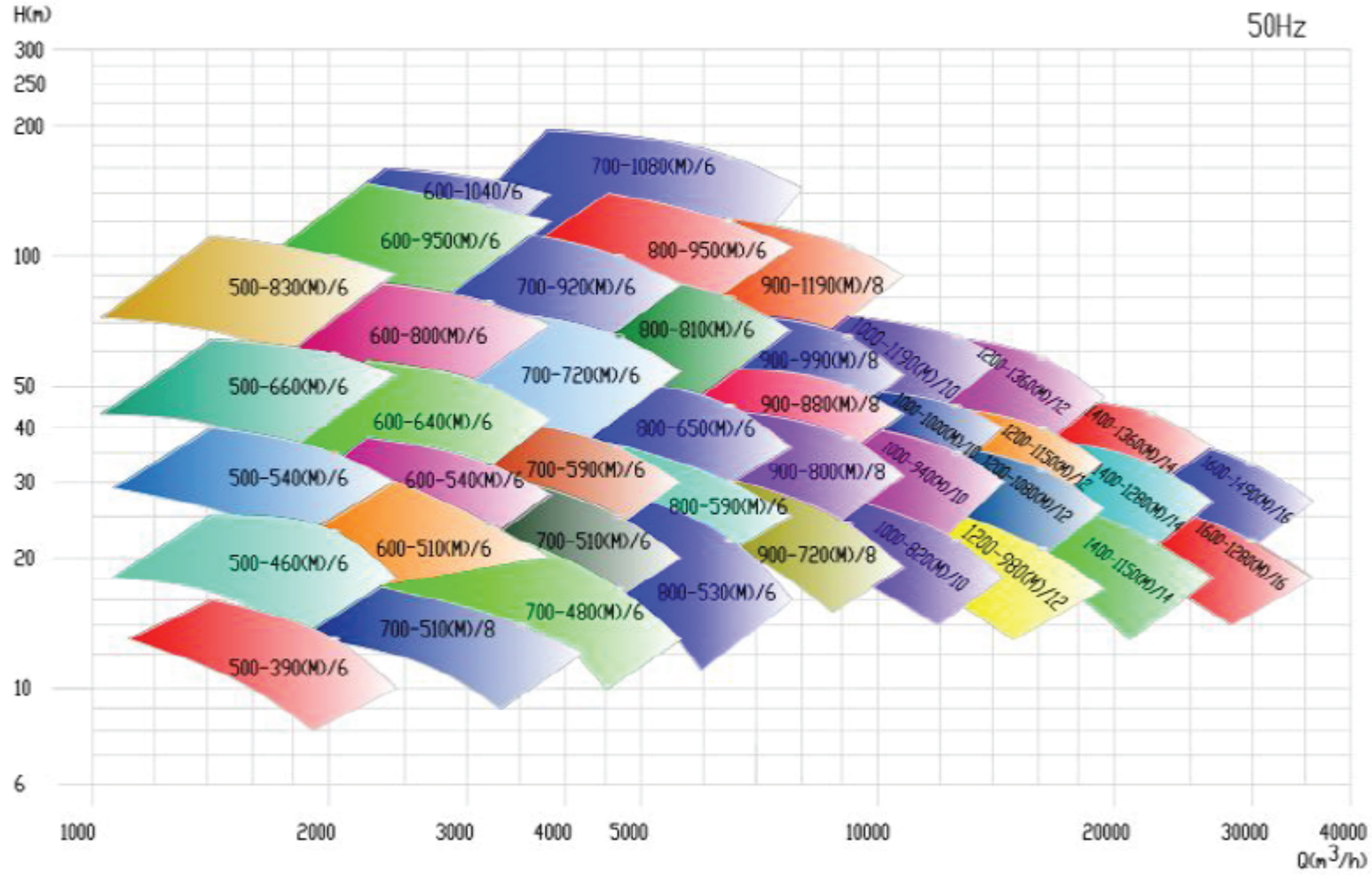
Chart 1



VERTICAL
SPLIT-CASE PUMPS

PUMP SELECTION BASED ON FLOW AND PRESSURE - 50Hz

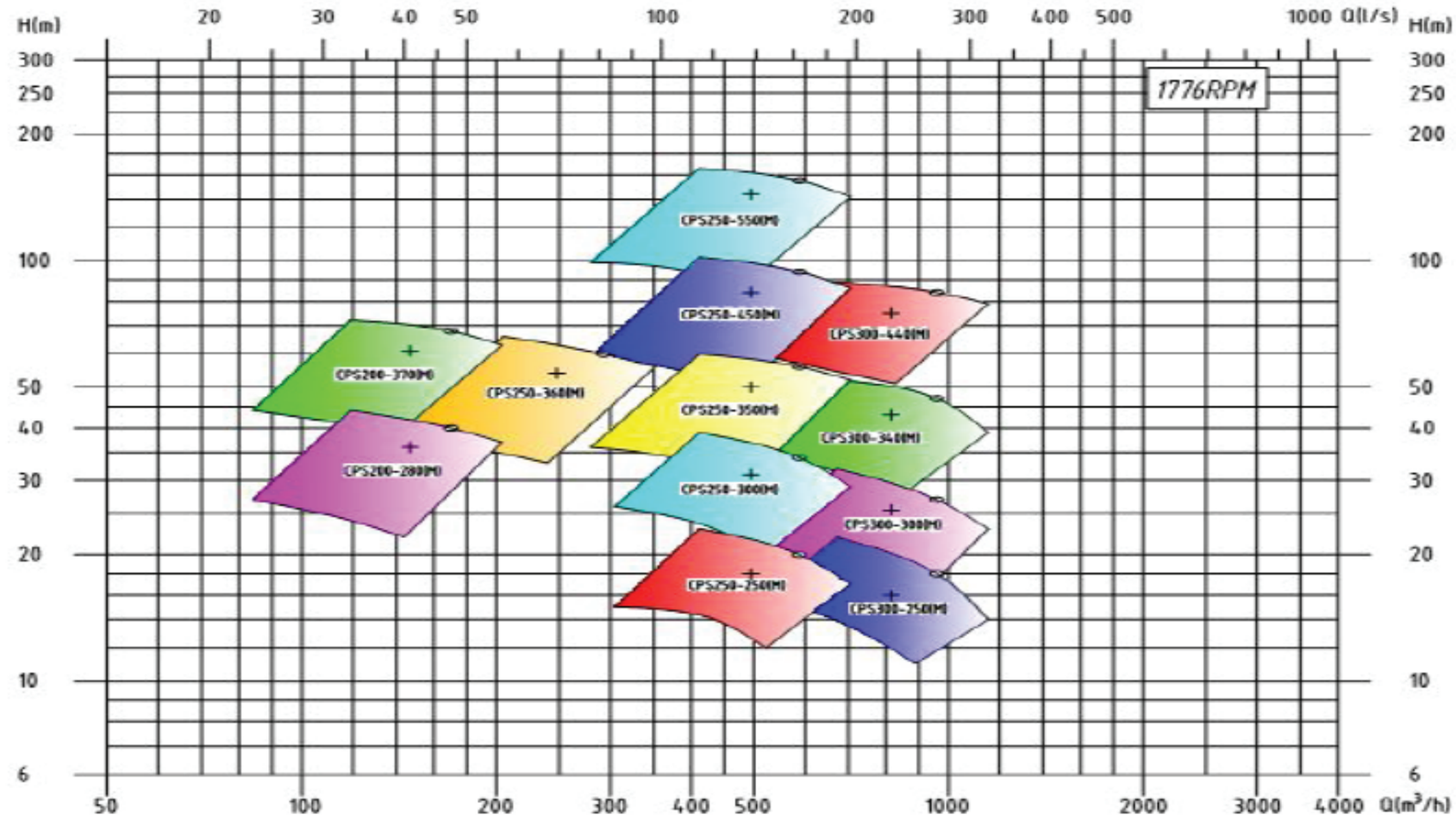
Chart 2



VERTICAL
SPLIT-CASE PUMPS

PUMP SELECTION BASED ON FLOW AND PRESSURE - 60Hz

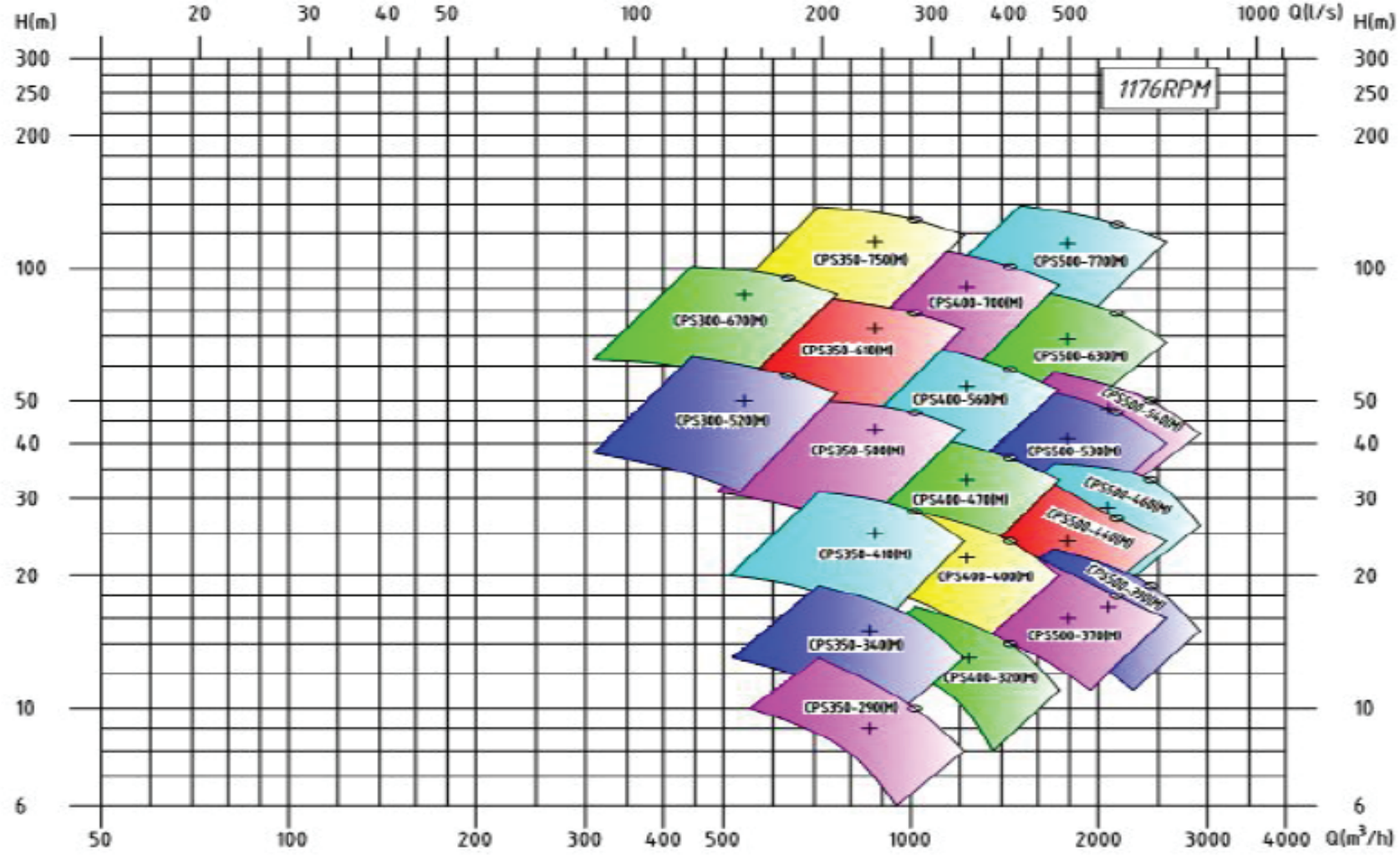
Chart 1



VERTICAL
SPLIT-CASE PUMPS

PUMP SELECTION BASED ON FLOW AND PRESSURE - 60Hz

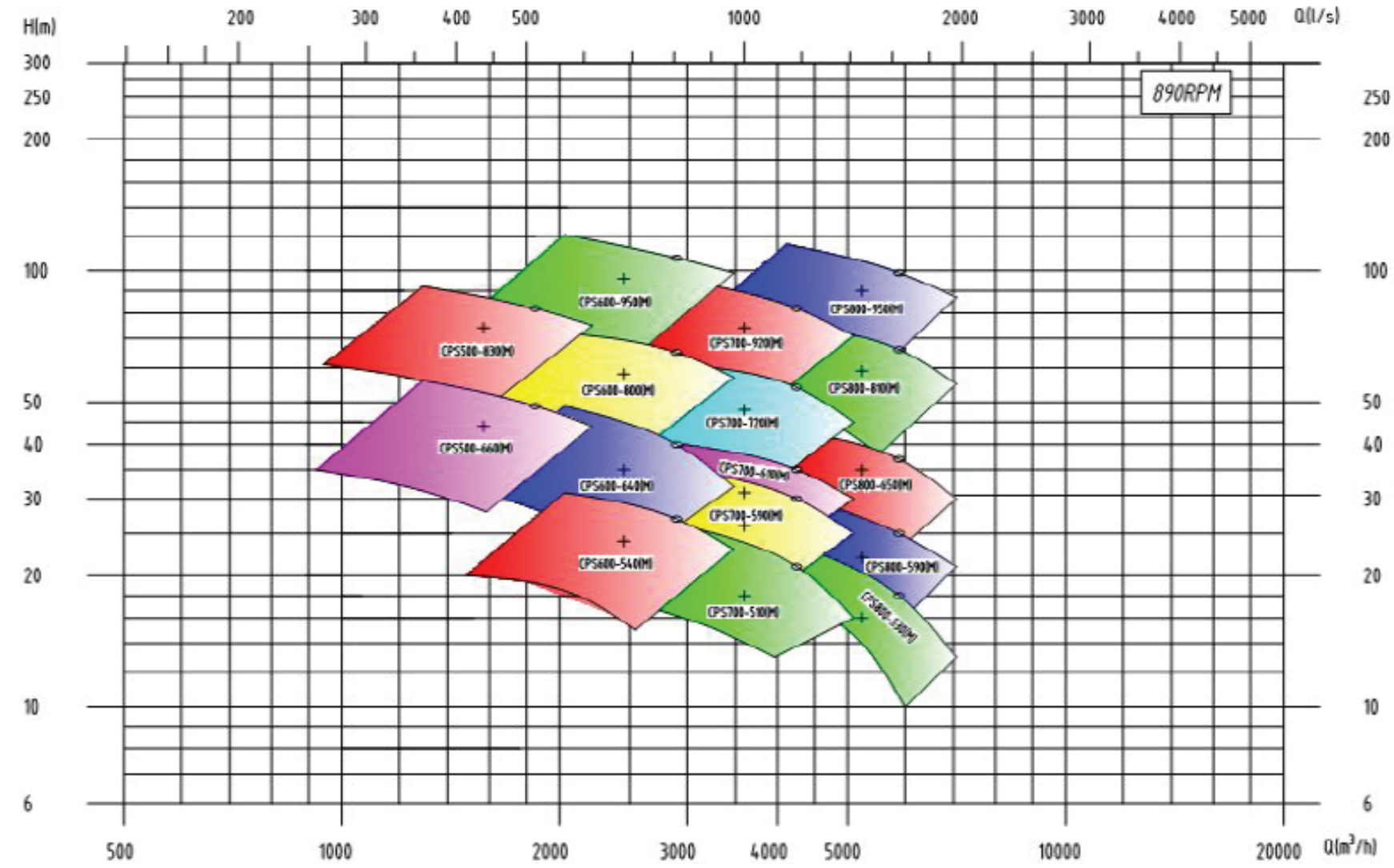
Chart 2



VERTICAL
SPLIT-CASE PUMPS

PUMP SELECTION BASED ON FLOW AND PRESSURE - 60Hz

Chart 3



VERTICAL
SPLIT-CASE PUMPS

PUMP SELECTION BASED ON FLOW AND PRESSURE - 60Hz

Chart 4