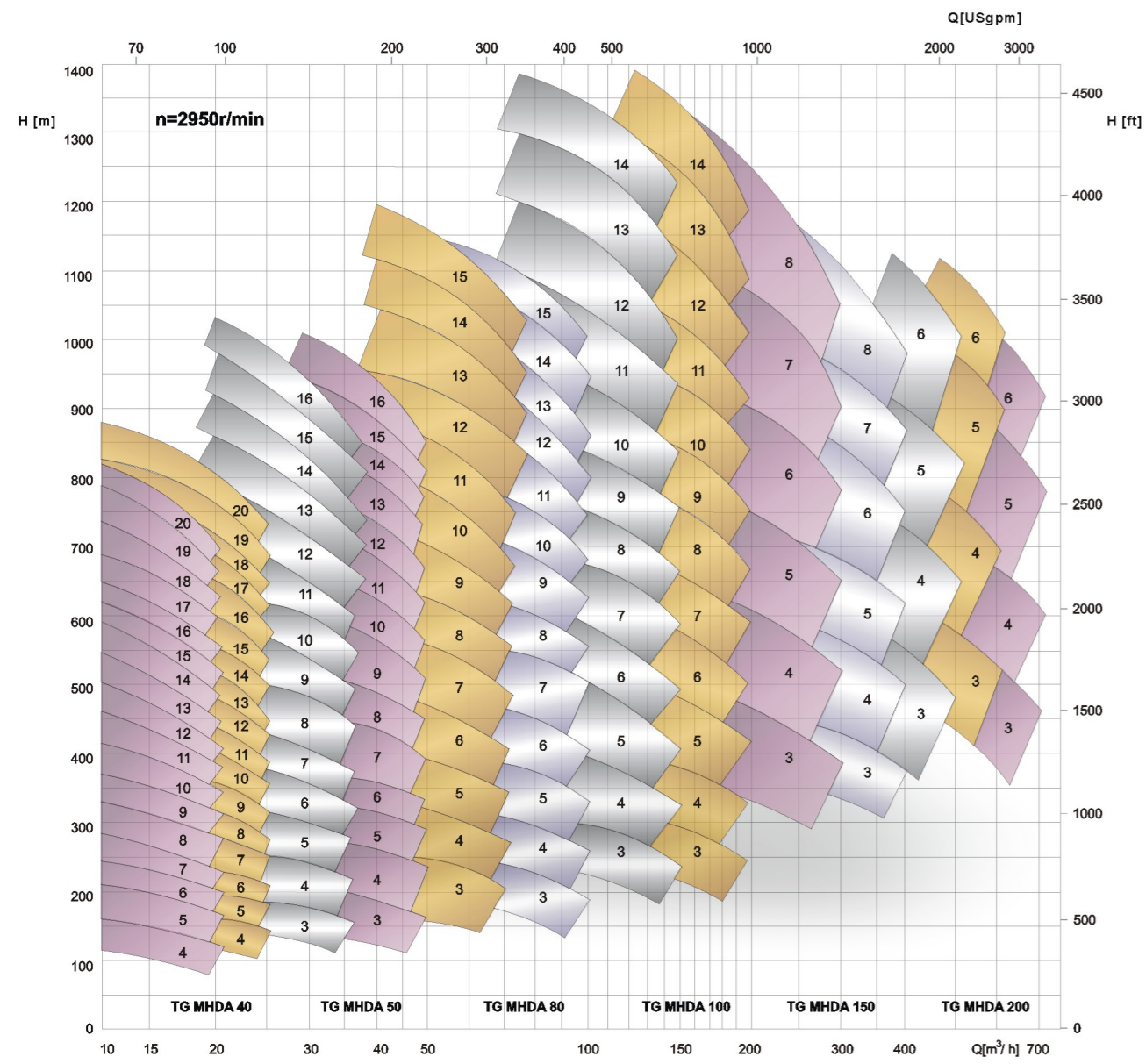
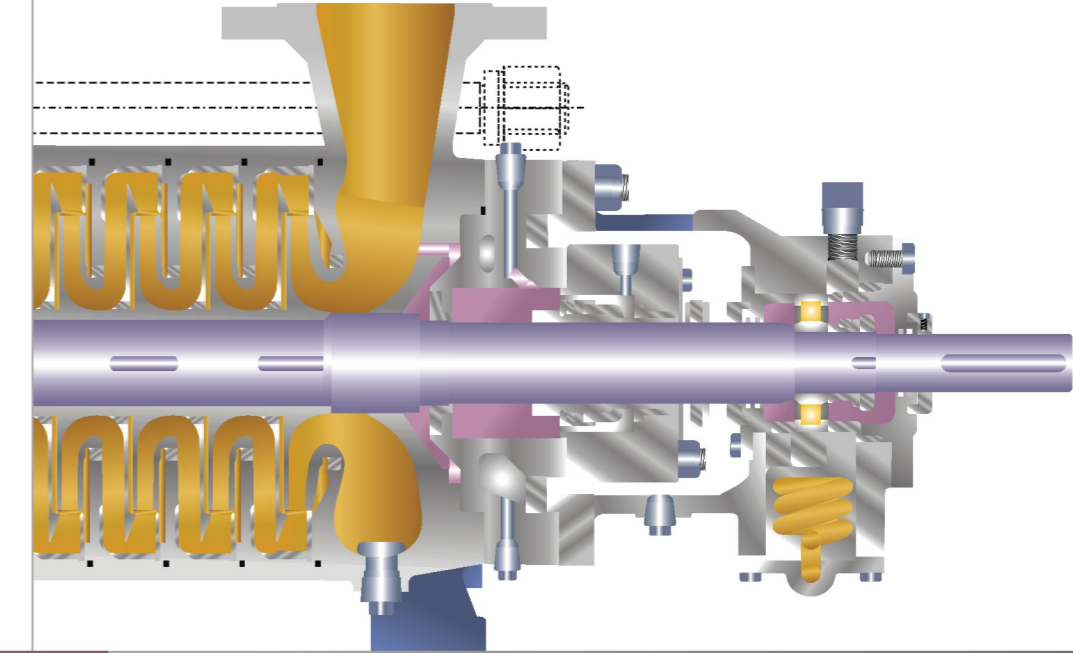
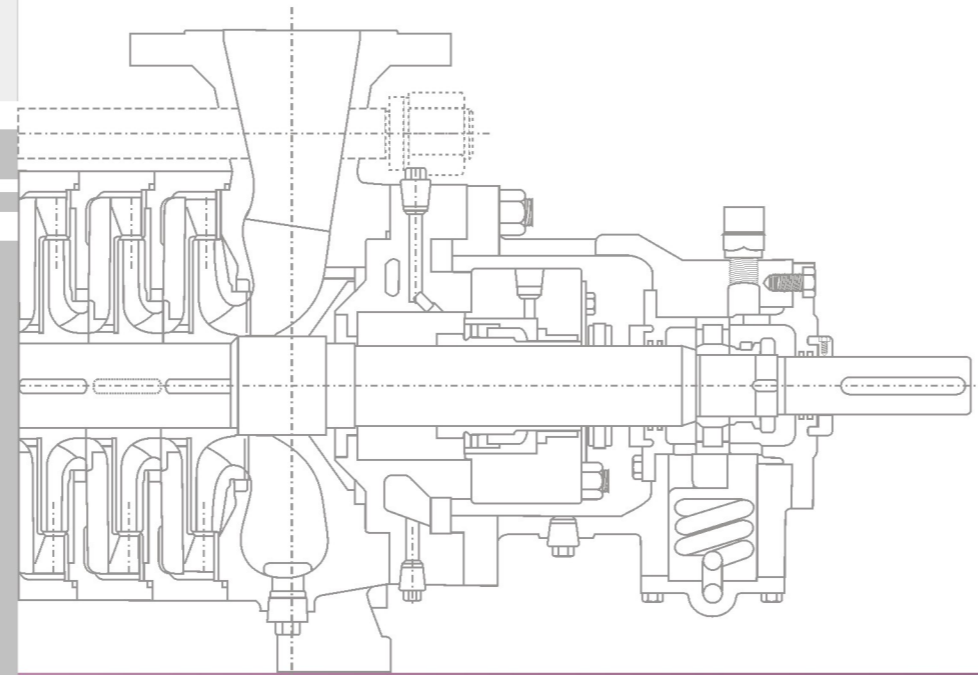


SELECTION CHART

50 Hz



\* Other performance charts are available at different speed.



PT TORISHIMA GUNA ENGINEERING

HEAD OFFICE : Jl. Rawa Sumur Timur No. 1 Pulugadung Industrial Estate,  
Jakarta 13930 - Indonesia. Phone: +62 21 460 3963, Fax: +62 21 460 3937  
Email : tge-info@torishima-guna.co.id

TURBOMACHINERY WORKSHOP : Jl. Selayar II Blok H-12, Kawasan Industri MM2100  
Telajung, Cikarang Barat Bekasi 17845, West Java - Indonesia.  
Phone: +62 21 2957 6955, Fax: +62 21 2957 6956

@ tge.id | www.torishimaguna.com

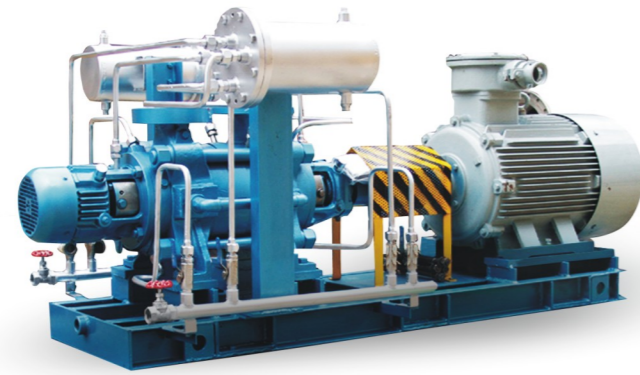
Radially Split Multistage  
Between Bearing Pump  
API 610 10<sup>th</sup> Ed  
BB4 Type





**GENERAL**

TG MHDA series centrifugal pump is horizontal single casing and multistage ; casing is supported by foot or centerline, which is applied in Petroleum Industry, Petrochemical Industry, Power Station. Designed according to API 610 10<sup>th</sup> Ed ( BB4 Type ).



**OPERATING RANGE**

Capacity	Q	Up to 500 m <sup>3</sup> /hr	( 2200 usgpm )
Total head	H	Up to 1,200 m	( 3900 feet )
Temperature	T	- 80 to 180 °C	( - 110 to 350 °F )
Discharge Pressure	PN	Up to 15 MPa	( 2170 psi )
Nominal Bore	DN	From 40 to 200 mm	( 1.5 to 8 inch )

**DESIGN**

The pump is radial split sectional construction. In general, the discharge nozzle is upward, and the suction one is rightward (viewed from driver end). The location for discharge and suction nozzle is changeable, and it is allowed to have other drain pile.

There are two varying impellers and diffusers for each size, so the efficiency area is large. The renewable ring provides a sealing function between the impeller and casing.

The axial thrust which is produced by each impeller is balanced by balancing device. For example, to balance the axial thrust by balancing drum, the residual one is stood by bearing.

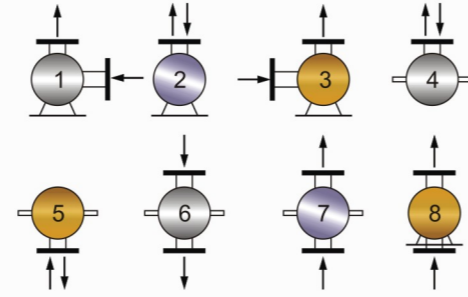
The bearing is radial roller type ; residual axial thrust is balanced by centripetal thrust ball bearing, providing oil and grease lubrication.

The shaft seal could use packing or mechanical seal, which one is chosen by order. The motor drives directly through coupling. Rotation direction is CCW viewed from driver end.



Power Station

**POSITION OF INLET & OUTLET**



TYPE	POSITION OF INLET & OUTLET								2 fit for 4 stages above	
	1	2	3	4	5	6	7	8		
TG MHDA 40	●	●	●							2 for 4 stages or 2,4,5 fit for 4 stages above
TG MHDA 50	●	●	●	●	●	●	●	●	●	2,4,5 for 4 stages or 2,4,5 fit for 3 stages above
TG MHDA 80	●	●	●	●	●	●	●	●	●	2,4,5 for 3 stages.
TG MHDA 100	●	●	●	●	●	●	●	●	●	
TG MHDA 150	●	●	●	●	●	●	●	●	●	

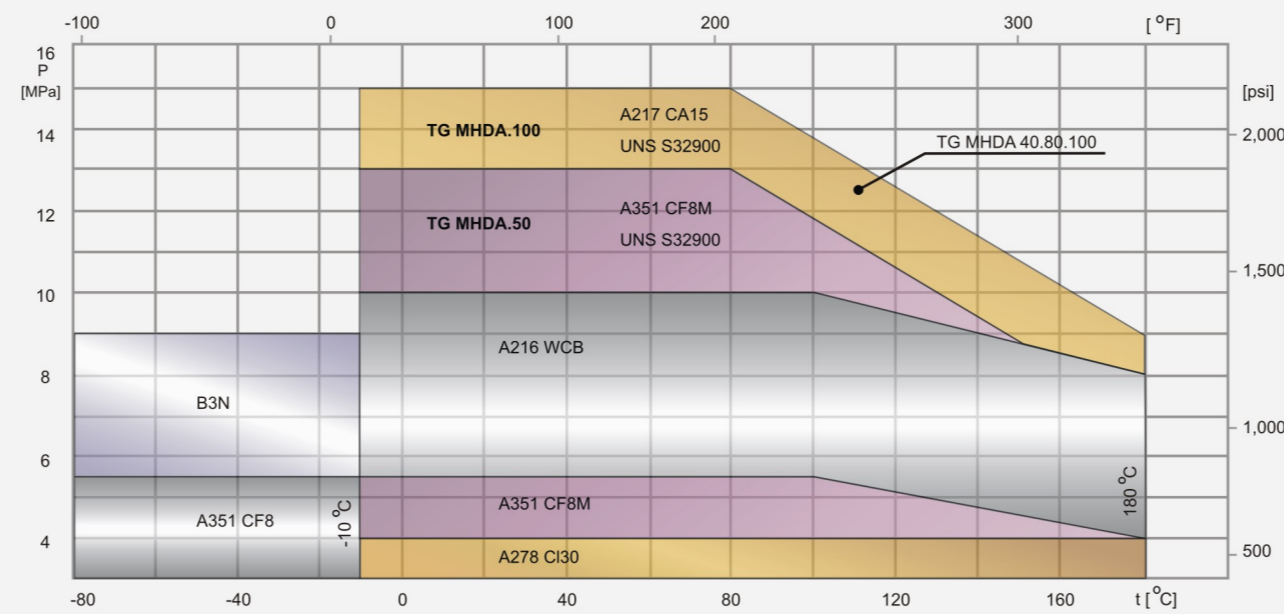
● Position of Inlet & Outlet Nozzle Viewed from Driving End ● Possible Inlet & Outlet Position

Suction and discharge nozzle orientation viewed from driver end

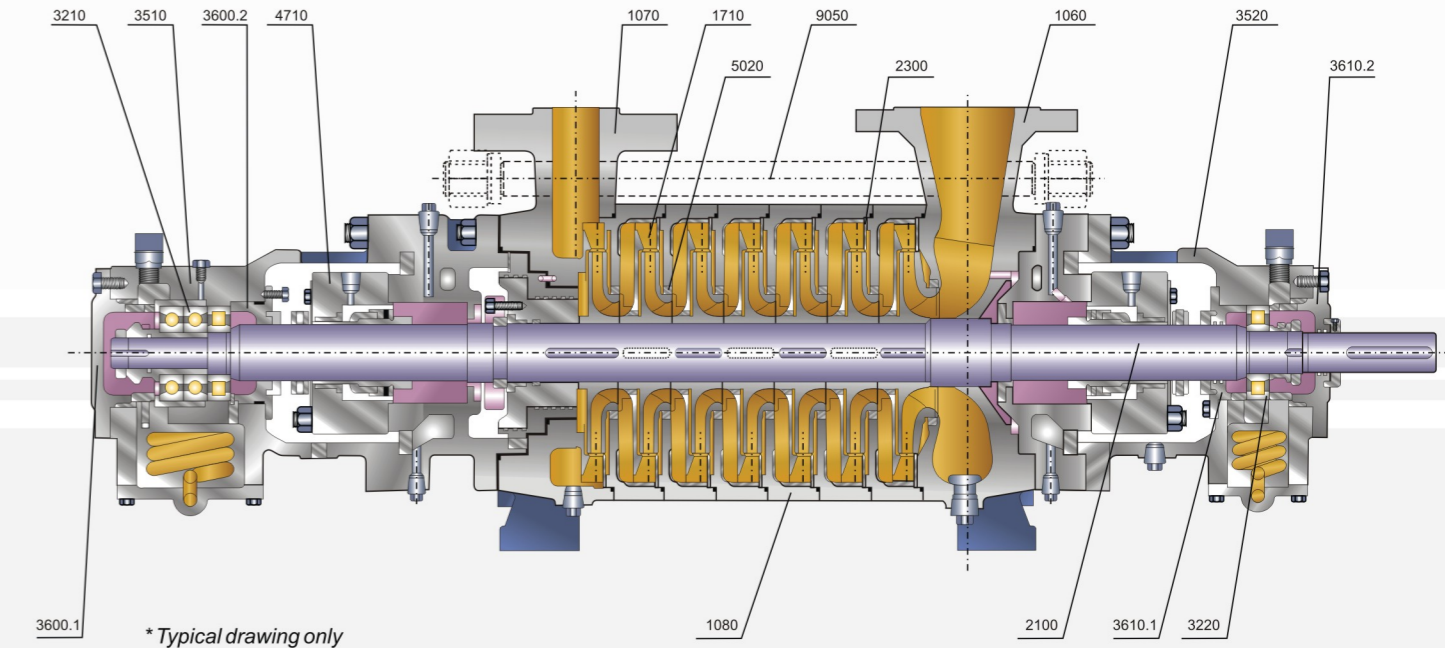
**FLANGE**

In accordance with ANSI 300 lb or 600 lb. Other standards are available by request

**DIAGRAM OF PRESSURE & TEMPERATURE**



**SECTIONAL DRAWING**



\* Typical drawing only

1060 : Suction Casing	3210 : Ball Bearing	3610.1 : Bearing Cover
1070 : Discharge Casing	3220 : Roller Bearing	3610.2 : Bearing Cover
1080 : Stage Casing	3510 : Bearing Bracket	4710 : Sealing Cover
1710 : Diffuser	3520 : Bearing Bracket	5020 : Casing Wear Ring
2100 : Shaft	3600.1 : Bearing Cover	9050 : Tie Bolt
2300 : Impeller	3600.2 : Bearing Cover	