

### **Fire Competition Market - Standarts**

#### VdS

All components are VdS approved: pumps, Control **Panels** 

#### FM/UL

All components are selected acc. to NFPA20 and FM/UL approved: pumps, valves, electric motors, diesel engines and Control Panels

#### Acc. NFPA 20

All components are selected acc. to NFPA20 without FM/UL approval.

#### EN 12845

All components are selected acc. to EN12845.

#### Local Stand.

Local regulations are considered. Responsibility of uncertified products belongs to manufacturer.



## **International Certificates**

	NATIONAL PRODUCT CERTIFICATIONS / STANDARDS						
	Germany	France	England	Hungary	Czech Rep.	Poland	USA
	VdS	APSAD/CNPP	LPC	BMOKF	ZUS/Pavus	CNBOP	FM
	VdS	CNFP	(POS 💆		ZÚS	CNROP	AM Approvals
Etanorm- MX	•			•	•	•	
Etanorm- MXN		•		•	•		
Etanorm- RX	•			•	•	•	
Etanorm- RXN		•		•	•		
CPK-SX	•			•	•	•	
Multitec-SX	•			•			
Omega/RDL				•			•
ES							•
Movitec	•			•	•		
UPA	•			•	•	•	
HSC							•





**Fire Pumps** 

**KSB Fire Fighting Products** (VdS & Nfpa 20)

**Fire Fighting Pump Set** 

Products for Fire Fighting Application;

- Fire Pumps,
- Fire Fighting Pump Sets,
- Fire Fighting Pump Groups.

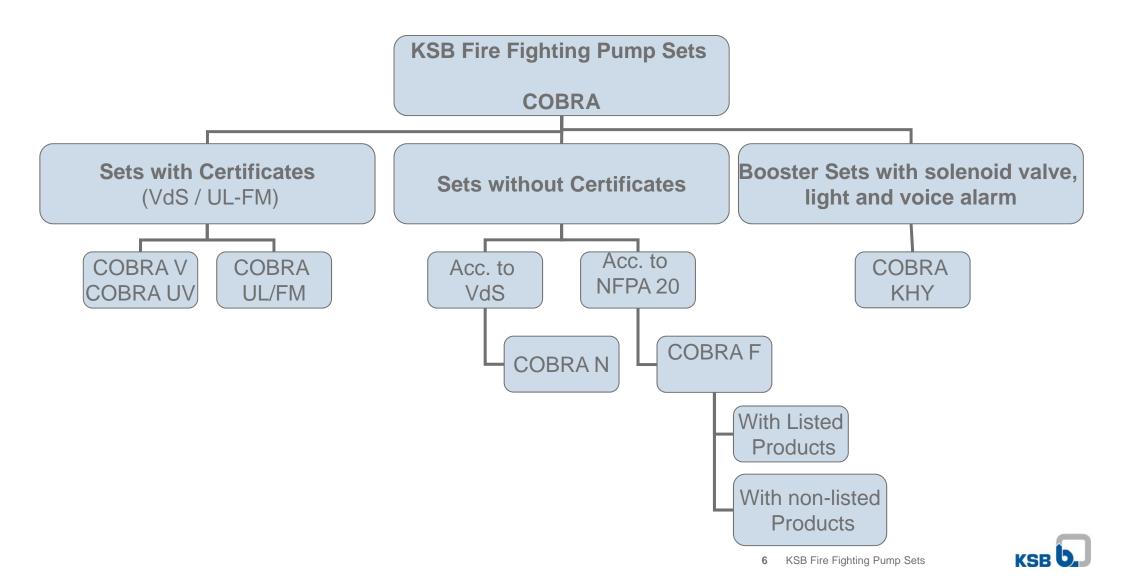
**Fire Fighting** Pump Group.

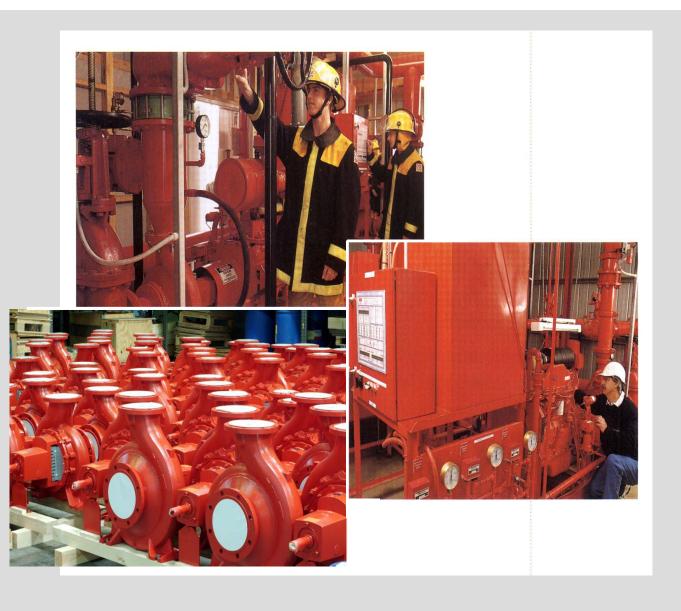


# **KSB Products**









# **KSB Fire Fighting Pump Sets**

- COBRA V
- COBRA UV
- COBRA UL/FM
- COBRAF
- COBRAN
- COBRAKHY





#### **COBRAV**

- VdS Approved Fire Fighting Pump sets with VdS certificated products.
- Fire Pumps, Controllers,
  Pressure Switches are VdS approved.
- Operating Data
- Maximum Flow: 600 m3/h
- Maximum Head: 600 mwc









### **Cobra V Fire Fighting Pump Sets**

- Allowable Pump Types
  - ETANORM MX (ETNF-FXV)
  - ETANORM RX
  - CPKN SX
  - MULTITEC ASX
  - MOVITEC
- All pumps have VdS approval serial no.
- These pumps are designed specifically for sprinler and hydrant systems.







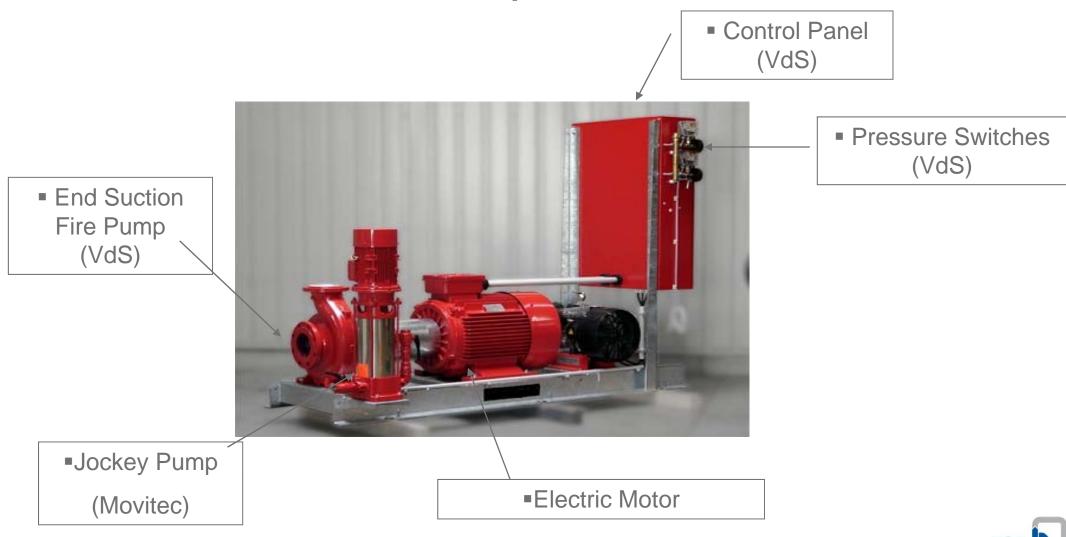


## **Cobra V Fire Fighting Pump Sets**

- Electric & Diesel Engine Driven Fire Firghting Pump Sets consist of;
  - Pump (Vds Approved KSB AG)
  - Controller are (VdS Approved)
  - Pressure Switches (VdS Approved)
  - Electric Motors (Siemens IE2-Eff1)
  - Diesel Engines (Iveco, Clarke UK etc.)



## **Electrical Pump Set acc. to VdS**



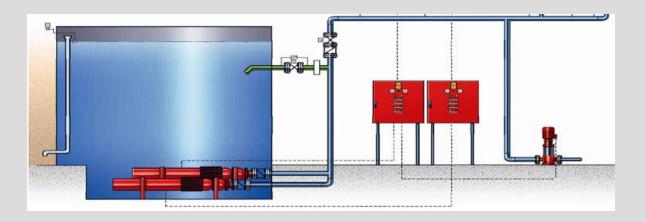


# Diesel Pump Unit acc. to VdS









#### **COBRAUV**

- VdS Approved Fire Fighting Pump set with VdS certificated submersible pumps.
- Pump Type;
  - UPA

•All pumps have VdS approval serial no.





#### **COBRAUL/FM**

- Fire Fighting Pump sets with UL/FM certificated products.
- Fire Pumps, Controllers Diesel Engines are UL/FM approved.
- Operating Data
- Maximum Flow: 3000 Gpm
- Maximum Head: 236 Psi







## **Cobra UL/FM Fire Fighting Pump Sets**

Allowable Pump Types

(ES – Armstrong Pump) - End Suction

- Horizontal Split Case (HSC – Armstrong Pump)

- Vertical Turbine (VTF – Armstrong Pump)

■These pumps are UL Listed / FM Approved and designed specifically for sprinler and hydrant systems.







### **Cobra UL/FM Fire Fighting Pump Sets**

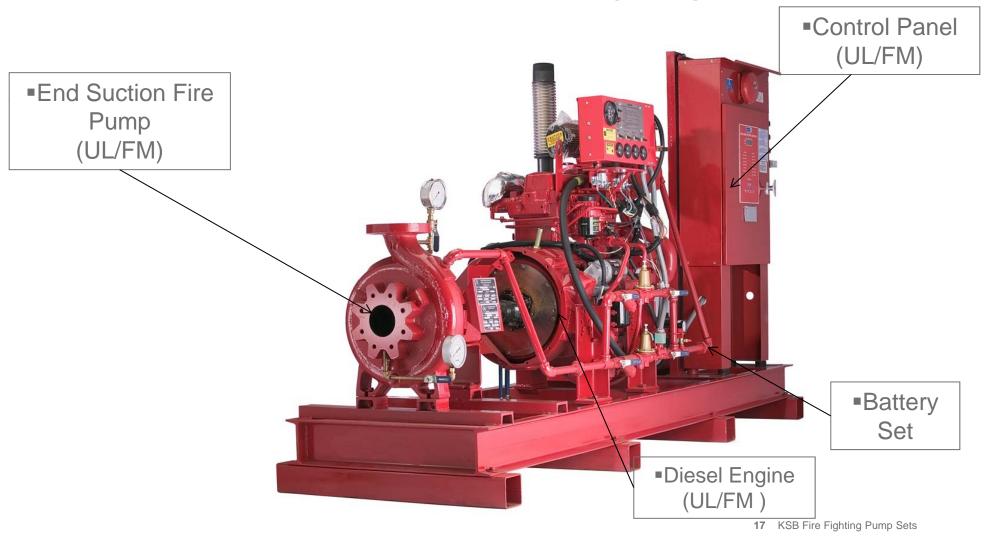
- Electric Pump Sets consist of;
  - Pumps (UL/FM Armstrong Pump)
  - Controllers are UL/FM (Tornatec)
  - Electric Motors (Siemens IE2-Eff1)

(Nema MG1 - UL Listed upon request)

- Diesel Pump Sets consist of;
  - Pumps (UL/FM Armstrong Pump)
  - Controllers (UL/FM Tornatech)
  - Diesel Engines (UL/FM Clarke UK/USA)



# **COBRA UL/FM - Fire Fighting Pump Sets**







#### **COBRAN**

- KSB non-listed Fire Fighting Pump Sets (acc. to VdS);
- Pump Sets consist of KSB Pumps

- Operating Data
- Maximum Flow: 600 m3/h
- Maximum Head: 600 mwc









# **Cobra N Fire Fighting Pump Sets**

#### Allowable Pump Types

- BETA MEGA WKL
- ETANORM RM / MXN (ETNF-FXA)
- CPK N
- MULTITEC
- UPA
- MOVITEC Etc.



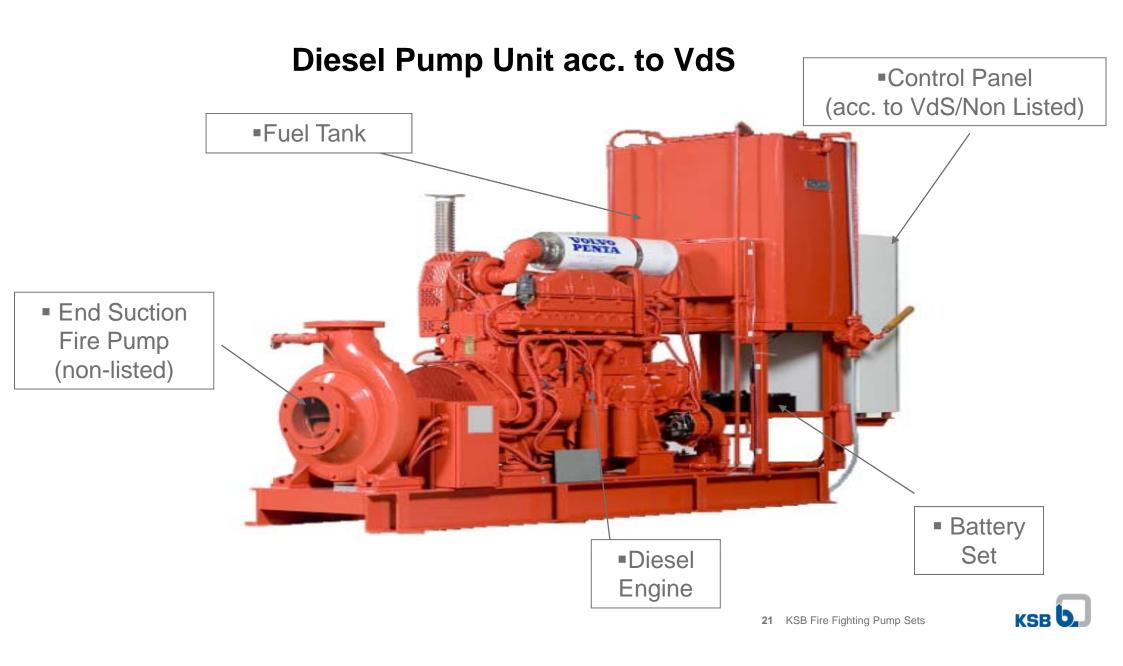




#### **Cobra N Fire Fighting Pump Sets**

- Electric & Diesel Engine Driven Fire Firghting Pump Sets consist of;
  - Pumps (Non-Listed KSB Pumps)
  - Controllers are (Local Manufacturer Acc. to VdS Standarts)
  - Pressure Switches (Non-Listed)
  - Electric Motors (Siemens IE2-Eff1)
  - Diesel Engines (Hatz, Iveco, Clarke UK etc.)







#### **COBRAF**

- KSB Fire Fighting Pump Sets acc. to NFPA 20;
- Pump Sets consist of KSB Pumps
- Operating Data
  - Maximum Flow: 600 m3/h
- Maximum Head: 600 mwc





## **Cobra F Fire Fighting Pump Sets**

#### Allowable Pump Types

- BETA MEGA WKL
- ETANORM RM / MXN (ETNF-FXA)
- CPK N
- MULTITEC
- OMEGA
- UPA
- MOVITEC Etc.





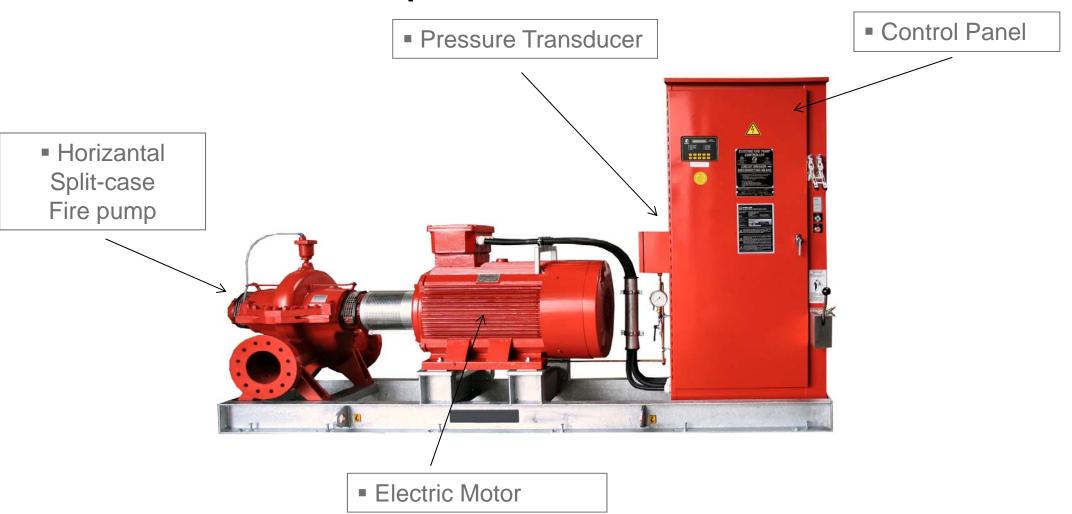
### **Cobra F Fire Fighting Pump Sets**

- Electric & Diesel Engine Driven Fire Firghting Pump Sets consist of;
  - Pump (Non-Listed & Listed KSB Pumps upon customer request)
  - Controller (Tornatech Acc. to NFPA 20 Standarts / Non-Listed)
  - Electric Motor (Siemens IE2-Eff1)
  - Diesel Engine (Hatz, Iveco, Clarke UK etc.)

Selected pumps shall comply with NFPA 20 Pump curve rules



## **Electric Fire Pump Set acc. to NFPA 20**







#### **COBRAKHY**

 KSB Booster Sets for Fire Fighting Application.





## **Cobra KHY Fire Fighting Pump Sets**

- KSB Booster Sets consist of;
  - Pumps (Non-Listed DP Pumps Movitec)
  - Controller (Booster Control)
  - Suction discharge collectors
  - Suction valves
  - Discharge valves and check valves
  - Solenoid Valve
  - Voice & Light Alarm





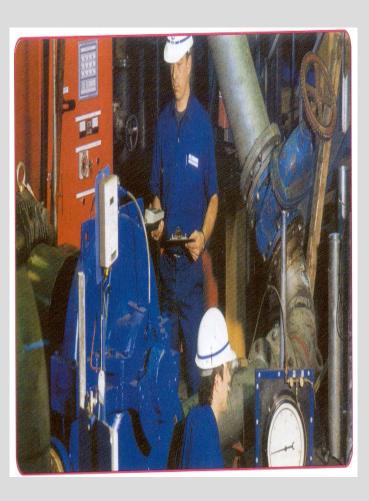


#### **JOCKEY PUMP**

- Vertical, multistage pump is used as Jockey pump to cover little pressure looses in the system.
- Pump Type;
  - Movitec



# **Commissioning and Periodic Maintenance**





- Commissioning of Fire Fighting Pump sets are carried out free of charge by KSB Center services in Turkiye
- ■24/7 Service possibility to all parts of the country

