

## Handles

DN Sizes	Description Designation	Model Code	Spindle Square Size	Model Code	Part Number
06, 10	Straight Aluminum	11X	SW09	HANDLE STR AL SW09	00270099
06, 10	Offset Aluminum	12X	SW09	HANDLE OFS AL SW09	00271423
06, 10	Offset Steel	16X	SW09	HANDLE KIT OFS STL SW09	02064265*
16	Straight Aluminum	11X	SW12	HANDLE STR AL SW12	00270100
16	Offset Aluminum	12X	SW12	HANDLE OFS AL SW12	00270381
16	Offset Steel	16X	SW12	HANDLE KIT OFS STL SW12	02064266*
20, 25	Straight Aluminum	11X	SW14	HANDLE STR AL SW14	00270101
20, 25	Offset Aluminum	12X	SW14	HANDLE OFS AL SW14	00270382
20, 25	Offset Steel	16X	SW14	HANDLE KIT OFS STL SW14	02064267*
32, 40, 50	Offset Steel	16X	SW17	HANDLE KIT OFS STL SW17 16X	02064268*
32, 40, 50	Offset Aluminum	12X	SW17	HANDLE OFS AL SW17	00270383
32, 40, 50	Straight Aluminum	11X	SW17	HANDLE STR AL SW17	00270311

\* These handles require the additional mounting hardware which is included

## Engineering Data

Housing	
<b>Block Type (KHB)</b>	Carbon Steel ( <i>standard</i> ) 14°F Min temp
<b>Forged Type (KHM)</b>	Forged Steel ( <i>standard</i> ) 14°F Min temp Stainless Steel ( <i>optional</i> ) -40°F Min temp
<b>Coatings</b>	Standard Models Phosphate Coated (Others available on Request)
Ball	
	Chrome Plated Steel ( <i>standard</i> ) Stainless Steel ( <i>optional</i> )
Spindle	
	Zinc Plated Steel ( <i>standard</i> ) Stainless Steel ( <i>optional</i> )
Handles (see above)	
<b>11X</b>	Straight Aluminum, Red Anodized
<b>12X</b>	Offset Aluminum, Red Anodized
<b>16X</b>	Offset Steel, Galvanized
Ball Seal	
<b>Polyacetal (POM)</b>	Standard for Hydraulic Oils, Water Glycol Maximum Pressure: to 7250 psi (500 bar) Temperature Range: -22° to 212°F (-30° to 100°C)
<b>PTFE For Corrosive Media</b>	Maximum Pressure: to 1500 psi (100 bar) Temperature Range: -328° to 212°F (-200° to 100°C) <b>Temperature to 392°F (200°C) at reduced Pressure</b> (see chart at right for pressure-temperature profile)
<b>NBR For Gaseous Media</b>	Maximum Pressure: to 1500 psi (100 bar) Temperature Range: -13° to 212°F (-25° to 100°C) (see chart at right for pressure-temperature profile)
<b>PEEK High Temperature Seal</b>	Maximum Pressure: to 7250 psi (500 bar) Temperature Range: -238° to 212°F (-150° to 100°C) <b>Better high temperature profile than PTFE</b> <b>Temperature to 482°F (250°C) at reduced Pressure</b> (see chart at right for pressure-temperature profile)

### Spindle Seal & O-rings

**Fluorocarbon (FPM)** Standard for hydraulic oils and many acids

Maximum Pressure: to 7250 psi (500 bar)  
Temperature Range: -4° to 392°F (-20° to 200°C)

**NBR** Seal for hydraulic oils, lubricants, greases

Maximum Pressure: to 7250 psi (500 bar)  
Temperature Range: -13° to 212°F (-25° to 100°C)

**PTFE** for corrosive media and bases

Maximum Pressure: to 1500 psi (100 bar)  
Temperature Range: -328° to 212°F (-200° to 100°C)  
Temperature to 392°F (200°C) at reduced pressure

**EPR** Ethylene Propylene Rubber for some phosphate esters

Maximum Pressure: to 7250 psi (500 bar)  
Temperature Range: -58° to 300°F (-50° to 150°C)

### Special Seals

Other materials are available for special applications.

Consult HYDAC for your specific application.

**Press-Temp curve for different Ball Seal materials**

