



Products Complied with RoHS Directive

Cat.NO. Ck038a

For Hydraulics

WHB Cupla

NEW

General Purpose Hydraulic Couplings



- *Special steel body is tough against vibration and impact*
- *Low pressure loss characteristics suit hydraulic equipment application*
- *Both socket and plug have built-in automatic shut-off valves that prevent fluid outflow on disconnection*
- *Heavy duty back-up ring supports O-ring to withstand high pressure*
- *Special steel body coated with nickel plating*
- *Meets the dimensional requirements of ISO7241-1, Series B*

Applications

Hydraulic power package connection, agricultural equipment, construction equipment and machineries, hydraulic presses, trailer truck connection, mining equipment, steel production machinery, in plant machinery, hydraulic related production equipment, etc.

Specifications

Body material	Steel (Nickel-plated)							
Size	1/4"		3/8" • 1/2"		3/4" • 1"			
Unit	MPa	kgf/cm ²	PSI	MPa	kgf/cm ²	PSI	MPa	kgf/cm ²
Working pressure	35.0	357	5000	28.0	286	4000	18.0	183
Pressure resistance	52.5	536	7500	42.0	428	6000	27.0	275
Seal material Working temperature range	Seal material		Mark	Working temperature range		Remarks		
	Nitrile rubber		NBR	-20°C~+80°C		Standard material		
	Fluoro rubber		FKM	-20°C~+180°C		Available on request		

Max. Tightening Torque N·m (kgf·cm)

Size	1/4"	3/8"	1/2"	3/4"	1"
Torque	28 (286)	40 (408)	80 (816)	100 (1020)	180 (1836)

Flow Direction

Fluid may flow in either direction from plug or from socket side when coupled.



Interchangeability

Different sizes cannot be connected.

Min. Cross-Sectional Area (mm²)

Model	WHB-2SP-NPT	WHB-3SP-NPT	WHB-4SP-NPT	WHB-6SP-NPT	WHB-8SP-NPT
Min. Cross-Sectional Area	24	42	79	146	235

Suitability for Vacuum 1.3Pa (1 x 10⁻²mmHg)

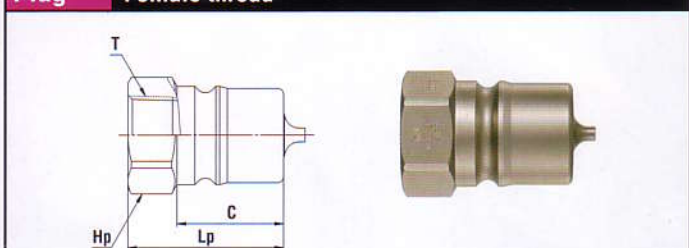
Socket only	Plug only	When connected
-	-	Operational

Admixture of Air on Connection (mℓ)

Model	WHB-2SP-NPT	WHB-3SP-NPT	WHB-4SP-NPT	WHB-6SP-NPT	WHB-8SP-NPT
Volume of air	1.0	2.7	4.0	11	19

Models and Dimensions

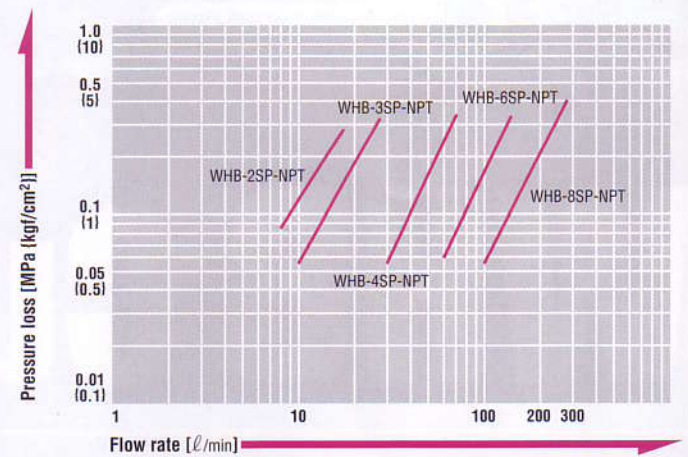
Plug Female thread



Model	Mass (g)	Dimensions (mm)			
		Lp	C	Hp(WAF)	T
WHB-2P-NPT	35	33	22.5	Hex.19	NPT 1/4
WHB-3P-NPT	56	35	25.5	Hex.23	NPT 3/8
WHB-4P-NPT	122	44	28.5	Hex.29	NPT 1/2
WHB-6P-NPT	225	52.5	36	Hex.35	NPT 3/4
WHB-8P-NPT	380	63.5	41	41 x ø44	NPT 1

Flow Rate – Pressure Loss Characteristics

[Test conditions] • Fluid : Hydraulic oil • Temperature : 30°C ± 5°C
• Fluid viscosity : 32 x 10⁻⁶m²/s • Density : 0.87 x 10³kg/m³



Safety Guide

Warning

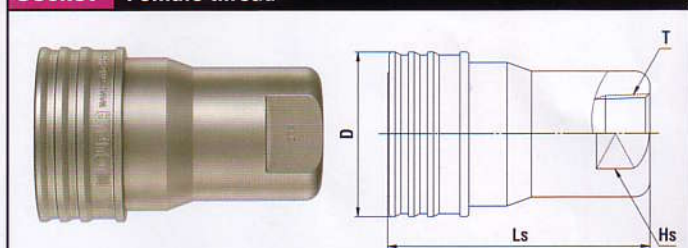
- Do not put fluids other than the specified by the maker through Couplas.
- Do not use Couplas continuously under any pressure exceeding the rated working pressure.
- Do not use at temperatures outside the rated working temperature range. Otherwise you may damage the seal material inside and cause leakage.
- Do not connect/disconnect with fluid under dynamic pressure or static residual pressure.
- Do not pressurize the socket or plug with fluid while disconnected.
- Do not disassemble.

Caution

- Apply liquid/tape sealant on male tapered threads to ensure no leak.
- Do not tighten up the screw on Coupla exceeding the rated maximum tightening torque, which may cause damage.
- Do not use for the purpose of other than quick connect coupling between fluid pipelines.
- Do not apply any artificial impact, bend, or tension other than necessary in connection and disconnection. This may cause leakage or damage.
- Do not use in a place where metal debris or sands may be around. This may cause malfunction or leakage.
- Careless paint on Couplas may cause malfunction or leakage.
- A shut-off valve must be installed between pressure source and the Coupla.
- Do not use as a swivel joint.
- Direct hookup to a vibration or impact device may result in reduced lifetime.
- Fluid must be cleaned through filters before reaching the Couplas.
- O-rings in Couplas must remain lubricated at all times.
- Design and keep the fluid flow speed through Couplas below 8 m/s.
- Do not strike the revealed end of an automatic shut-off valve with a hammer or the like. This may cause leakage or malfunction. Consult us for alternative way of releasing the residual pressure inside.

WAF : WAF stands for width across flat.

Socket Female thread



Model	Mass (g)	Dimensions (mm)			
		Ls	øD	Hs(WAF)	T
WHB-2S-NPT	143	55	29	19	NPT 1/4
WHB-3S-NPT	229	60	36	23	NPT 3/8
WHB-4S-NPT	430	72	45	29	NPT 1/2
WHB-6S-NPT	758	88.5	55	35	NPT 3/4
WHB-8S-NPT	1107	104	65	41	NPT 1

★ Specifications and designs are subject to change at any time without notice.



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